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Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States

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December 1996

WORKING PAPER 96-1

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

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Comments on the working papers are invited and may be sent to:

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In addition, residents of Canada are not taxable on income earned indirectly through foreign corporations, unless the foreign accrual property income (FAPI) or offshore investment fund rules apply, as discussed below. Thus, foreign-source income earned through foreign corporations in which Canadian residents own shares is subject to Canadian tax only when the shareholders receive dividends, or when they dispose of their shares in the foreign corporation.

With respect to the relief of international double taxation, residents of Canada are entitled to a credit against Canadian tax payable on foreign-source income for any foreign taxes imposed on such income. In certain circumstances, taxpayers are entitled to an optional deduction for foreign taxes. With respect to dividends received by Canadian corporations from foreign affiliates, Canada uses a combined exemption/credit system to relieve international double taxation.

Canada does not have well-developed source of revenue and expense rules for purposes of the taxation of foreign-source income. Such rules are relevant for purposes of both the direct and indirect foreign tax credit, and for the exemption for dividends out of the exempt surplus of foreign affiliates.

2.2 Foreign-source income earned directly

2.2.1 Branch income

Canadian residents must include in their worldwide income for Canadian income tax purposes any income earned from carrying on business in a foreign country. For the most part, the foreign-source business income is computed in accordance with the same rules that apply to the computation of Canadian-source income.

In general, Canadian residents deriving business income from other countries will also be subject to foreign tax in respect of such income, if the business is carried through a permanent establishment located in the foreign country. Pursuant to Canada's tax treaties, Canada is obliged to give credit for foreign taxes on foreign-source business income only where the Canadian resident carries on business through a permanent establishment located in the foreign country and the foreign tax is levied on income that is attributable to the permanent establishment.

The foreign tax credit is available only in respect of foreign "income or profits taxes." This term is not defined in the legislation, and there is little jurisprudence. The credit is limited to the Canadian tax payable on the foreign-source income computed on a country-by-country basis. The rules to determine source of revenue and expense for this purpose are primitive. Taxpayers appear to have significant flexibility in allocating expenses to foreign-source income. Similarly, there are no specific rules for allocating foreign taxes to foreign-source income.

The foreign tax credit is calculated separately for business and other income. In effect, Canada's foreign tax credit operates on the basis of two "baskets" of foreign income. Foreign business taxes that are not deductible in any year may be carried back for three years and forward for seven years. There is no carry-over with respect to foreign non-business taxes.

Foreign losses incurred by a resident of Canada are deductible in computing the taxpayer's worldwide income. With respect to foreign businesses, it is not surprising, therefore, that standard tax planning often involves the use of a foreign branch during the start-up period and conversion to a foreign subsidiary once the operations begin to generate profits. There is no rule to "recapture" foreign losses from subsequent foreign profits as part of the calculation of the foreign-tax credit.

2.2.2 Portfolio income

Foreign-portfolio income (for example, dividends, interest, rent and royalties) is included in a Canadian resident's worldwide income. Foreign taxes imposed on foreign-portfolio income, whether levied by assessment or by withholding, are creditable against Canadian tax payable subject to the same per-country limitation applicable to foreign-branch income. However, the foreign-tax credit for individuals with respect to foreign-source income from property other than real property is limited to 15 percent; any foreign taxes imposed in excess of 15 percent are deductible in computing income rather than creditable. In addition, foreign taxes on foreign-source portfolio income are deductible rather than creditable at the option of the Canadian taxpayer. There is no carryover for excess foreign taxes on portfolio income; however, such excess is deductible. Foreign-source losses in respect of portfolio investments are deductible in computing a Canadian resident's worldwide income.

2.3 Foreign-source income earned indirectly

2.3.1 Dividends from foreign affiliates

Dividends received by a Canadian corporation from a foreign affiliate are subject to a combined exemption/credit system for relieving international double taxation. A foreign affiliate is a foreign corporation in which a Canadian corporation owns at least 1 percent of the shares of any class, and the corporation and related persons own at least 10 percent. Because this test is based on the number of shares rather than on votes and value, it is relatively easy to determine a foreign corporation's status as a foreign affiliate.

Dividends received by individuals from foreign corporations, irrespective of the size of the individual's interest in the foreign corporation, do not qualify for the special combined exemption/credit system; nor do they qualify for the dividend tax credit. Such dividends are included in income, and the individual recipient is entitled to a foreign tax credit for any foreign withholding taxes on the dividend up to 15 percent. Any foreign withholding taxes in excess of 15 percent are deductible. Similarly, dividends received by a Canadian corporation from a foreign corporation that is not a foreign affiliate are included in income with a credit for any foreign withholding taxes on the dividends.

Dividends paid by a foreign affiliate to a Canadian corporation are deemed to be paid first out of the exempt surplus of the foreign affiliate, then out of its taxable surplus, and finally out of its pre-acquisition surplus. The exempt surplus of a foreign affiliate consists of active business income earned in countries with which Canada has a tax treaty, certain taxable capital gains, the exempt portion (1/4) of all capital gains, interaffiliate dividends received out of the exempt

surplus of other foreign affiliates, and certain amounts deemed to be active business income. As a result of recent amendments to the FAPI rules, the concept of active business income for purposes of the foreign affiliate rules has been narrowed with respect to certain real property, licensing, financing, and investment businesses. In general, Canadian source income earned by a foreign affiliate is not considered to be active business income.

The computation of exempt surplus is quite complicated. Usually, active business income of a foreign affiliate is computed in accordance with the tax law of the country in which the affiliate is resident, subject to certain adjustments. The surplus accounts are maintained in the currency of that country or another foreign currency that is reasonable in the circumstances.

Canadian corporations are entitled to a direct and an indirect foreign tax credit in respect of dividends received out of the taxable surplus of a foreign affiliate. Taxable surplus consists of FAPI, active business income earned in non-treaty countries, certain taxable capital gains, and dividends out of the taxable surplus of another foreign affiliate. The foreign tax credit in respect of dividends out of the taxable surplus of a foreign affiliate takes the form of a deduction in computing the Canadian corporation's taxable income. The credit for foreign withholding taxes on dividends paid by a foreign affiliate out of its taxable surplus is limited to one tier. The indirect foreign tax credit applies to the foreign income taxes paid by the foreign affiliate on the earnings out of which the dividend out of taxable surplus was paid. Thus, foreign taxes paid by a foreign affiliate must be allocated between amounts included in taxable surplus and other amounts. No specific rules are provided for this purpose. The indirect credit is available for any number of tiers of foreign corporations, as long as the relevant corporation is a foreign affiliate of the Canadian corporation. The indirect credit is computed separately for each foreign affiliate. It is subject to the same type of per-country limitation as the basic foreign tax credit, and any excess foreign taxes can be carried forward indefinitely. There is no attempt, however, to maintain the limitation when dividends are paid through various tiers of foreign affiliates.

Dividends paid by a foreign affiliate in excess of its exempt and taxable surplus are treated as a return of capital. These dividends out of pre-acquisition surplus are deductible in computing the Canadian corporation's taxable income, but they reduce the cost of the shares of the foreign affiliate.

Certain aspects of the foreign affiliate rules appear to be quite generous (although not necessarily inappropriate) in comparison with the similar rules of other countries:

- 1) Under paragraph 95(2)(a) of the *Income Tax Act*, amounts such as interest, royalties and rent (which would otherwise be passive income) paid to a foreign affiliate by another foreign affiliate, or by a related non-resident corporation, are deemed to be active business income if, in general, the payments are deductible by the payer in computing its active business income under the tax law of the country in which it is resident. This special rule allows Canadian multinational corporations to use international finance companies, certain international holding companies, international licensing companies, etc.
- 2) The ordering rule for dividends paid by a foreign affiliate permits Canadian corporations to defer Canadian tax on taxable surplus indefinitely. In addition, the distribution of taxable surplus can be avoided by making a return of capital or an upstream loan.

- 3) The disposition by a foreign affiliate of the shares of another foreign affiliate whose assets consist almost exclusively of excluded property does not result in the realization of a capital gain included in FAPI. Instead, the taxable capital gain is included in the disposing affiliate's taxable surplus so that it will be subject to Canadian tax only when it is paid as a dividend to the Canadian shareholder. However, dividends out of taxable surplus are rarely paid to a Canadian corporation if there is any Canadian tax payable on the dividend.
- 4) Under section 93 of the Act, a Canadian corporation can elect to treat a capital gain from the disposition of the shares of a foreign affiliate as a dividend. This election can be used to avoid Canadian tax on a capital gain or FAPI or to avoid foreign withholding taxes.

2.3.2 Allocation of income and expenses

Canadian rules with respect to the determination of the geographical source of revenue and expenses are not well-developed. In most cases, taxpayers appear to be able to allocate income and expenses among Canada and other countries as they see fit, subject only to some vague standard of reasonableness. The allocation of expenses is especially important in light of the exemption for dividends received out of the exempt surplus of foreign affiliates. Expenses incurred by a Canadian corporation that are allocable to such dividends should not be deductible in computing Canadian income. According to Revenue Canada, expenses must be allocated on a factual tracing basis, and only if tracing is impossible is allocation on some other basis acceptable. The most serious problem with the allocation of expenses is the deductibility of interest by Canadian corporations in respect of borrowed funds used to earn dividends out of exempt surplus of a foreign affiliate. Because dividends out of exempt surplus are not technically exempt income, the interest deduction is not denied.

Theoretically, the allocation of expenses is also a problem with respect to the indirect foreign tax credit for dividends paid out of taxable surplus of a foreign affiliate. To the extent that the expenses incurred by the Canadian corporation should be allocated to the foreign-source income out of which the taxable surplus dividends are paid but are not so allocated, the indirect foreign-tax credit will be overstated. Once again, there are no specific rules regarding the allocation of expenses for this purpose. There is also a timing problem with respect to expenses incurred to earn dividends out of taxable surplus. The expenses are deductible currently, whereas the dividends are included in income only when received. Because dividends out of taxable surplus are not often received by Canadian corporations, these are not serious practical problems.

2.3.3 Limitations on deferral

2.3.3.1 FAPI rules

The Canadian FAPI rules are intended to prevent Canadian residents from diverting income to a controlled foreign corporation, or from accumulating certain income in such corporations. The income of foreign corporations that are owned by Canadian residents is not subject to Canadian tax until the shareholders receive dividends from the corporation or sell their shares. This deferral of Canadian tax is advantageous to the extent that the foreign corporation's income is subject to foreign taxes that are lower than Canadian taxes. The effect of the FAPI rules is that

certain passive income earned by controlled foreign affiliates of Canadian residents is subject to Canadian tax to the Canadian resident shareholders when the income is earned by the controlled foreign corporation.

The FAPI rules apply only to controlled foreign affiliates, which are defined as those that are controlled directly or indirectly by five or fewer Canadian residents. For this purpose, control means *de jure* control. However, indirect and constructive ownership rules apply for the purposes of determining control. A corporation must be a foreign affiliate in order to be a controlled foreign affiliate. Therefore, the FAPI rules do not apply to any Canadian shareholder that owns less than 10 percent of any class of shares of the foreign corporation. The status of a foreign corporation is determined with respect to each Canadian shareholder. For example, a foreign corporation may be both a foreign affiliate and a controlled foreign affiliate to one Canadian shareholder, only a foreign affiliate to another Canadian shareholder, and neither to other Canadian shareholders.

Only FAPI, which is basically limited to passive investment-type income, is attributed to Canadian shareholders of controlled foreign affiliates. FAPI consists of income from property, income from investment-type businesses, certain capital gains, and certain business income derived from Canadian sources. The definition of FAPI was broadened pursuant to the 1995 amendments, which were directed at obvious abuses of the rules and did not constitute a comprehensive overhaul of those rules. FAPI does not include base company sales and services income. Consequently, Canadian corporations can establish tax haven subsidiaries to sell goods or render services to related parties outside Canada, or to sell goods acquired from the Canadian parent corporation. Perhaps even more important, FAPI does not include certain interest, rent, royalties, or other similar payments received by a controlled foreign affiliate from another foreign affiliate or a related non-resident corporation, to the extent that the payment is deductible in computing the payer's earnings from an active business in the country in which it is resident. As noted earlier, this provision allows Canadian multinationals to establish international finance, holding, and licensing companies in tax havens and, more generally, to use Canada's treaty network to convert passive income into dividends out of exempt surplus.

The FAPI rules operate on a transactional basis. Each item of income earned by a controlled foreign affiliate must be characterized as FAPI or as other income. The amount of foreign tax levied on the income is irrelevant. In other words, the Canadian FAPI rules do not operate on a designated jurisdiction basis. The controlled foreign corporation rules of most other countries apply only to designated low-tax countries.

Any FAPI of a controlled foreign affiliate is included in the income of the Canadian shareholders of the affiliate who own at least 10 percent of the shares of any class. The attributed amount is treated as income from a share in the foreign corporation, but not as a dividend. A *de minimis* exemption of \$5,000 annually is provided for each controlled foreign affiliate. This *de minimis* rule has become largely irrelevant over time.

Although the FAPI rules are intended to be prophylactic, a number of relief provisions are necessary to deal with situations where they apply. First, a Canadian corporate shareholder is entitled to a credit for any foreign income taxes levied on the FAPI and any foreign withholding

taxes levied on dividends paid out of the previously-taxed FAPI within five years of the inclusion of the FAPI in the shareholder's income. Second, dividends received out of previously taxed FAPI are tax-free to Canadian corporate shareholders. Third, pursuant to a system of costs base adjustments, any subsequent capital gain realized on the disposition of the shares of the controlled foreign affiliate are tax-free to the extent of any previously taxed and undistributed FAPI. Any FAPI included in a shareholder's income is added to the adjusted cost base of the shares; conversely, any foreign taxes credited and any subsequent dividends received reduce the adjusted cost base of the shares of the controlled foreign affiliate. Fourth, FAPI losses are not attributable to the Canadian shareholders of the controlled foreign affiliate. However, such losses may be carried forward against FAPI of subsequent years. Until 1995, active business losses of a CFC could be used to offset any FAPI. This provision was used by Canadian corporations to divert passive income to foreign corporations with active business losses, with the effect of making the foreign losses deductible against Canadian source income. The deductibility of active business losses against FAPI was repealed effective for 1995 and subsequent years. In general, FAPI and the relief provisions in respect of FAPI must be calculated and applied to each foreign affiliate separately. However, in certain limited circumstances, a Canadian shareholder may claim a credit in respect of foreign taxes paid by another foreign affiliate pursuant to a foreign consolidation or group relief regime.

2.3.3.2 Foreign investment funds

Because the FAPI rules apply only to CFCs and only to Canadian shareholders who own 10 percent of shares of any class of the foreign corporation, the rules can be easily avoided by having the shares of a foreign corporation widely owned by residents of Canada. Therefore, offshore mutual funds and unit trusts can be used to defer or avoid Canadian tax. Sometimes investments in these funds allow Canadian residents not only to defer Canadian tax, but also to convert ordinary income, such as interest, into capital gains on the disposition of their investments.

Under Section 94.1 of the Act that was introduced in 1984, Canadian residents owning an "offshore investment fund property" must include in income a notional amount equal to the designated cost of the interest multiplied by the prescribed rate of interest. However, section 94.1 applies only if:

- the offshore property derives its value directly or indirectly primarily from portfolio investments in certain types of property; and
- one of the main reasons for the taxpayer's acquiring the interest is to avoid Canadian tax, taking into account all of the circumstances including the nature of the offshore fund, terms and conditions of the taxpayer's interest, the foreign tax paid by the fund, and the extent to which the fund distributes its income currently.

Section 94.1 is an anti-avoidance rule that is intended to be prophylactic. It does not just eliminate the benefits of investing in foreign investment funds (FIFs) as opposed to Canadian investment funds. The imputed income approach used in section 94.1 is arbitrary and may penalize or reward taxpayers where the actual income earned by the foreign fund is less or more

than the arbitrary imputed income. For several years, section 94.1 appeared to have the desired *in terrorem* effect. However, it would appear that both taxpayers and Revenue Canada have enormous difficulty in applying section 94.1 except in clearly abusive cases.

2.4 Enforcement and administrative issues

The enforcement of the FAPI and foreign affiliate rules is extremely difficult for two basic reasons. First, it is extremely difficult for Revenue Canada to obtain information concerning a Canadian taxpayer's foreign-source income in order to ensure compliance with the foreign affiliate or FAPI rules. Second, the complexity of the rules makes it difficult for Revenue Canada to develop and retain the necessary expertise.

The importance of international business transactions has increased significantly in the past 25 years. Similarly, the number of Canadian taxpayers with foreign affiliates and controlled foreign affiliates has increased significantly. Revenue Canada appears to have difficulty in auditing FAPI and foreign affiliate issues, or indeed, foreign-source income issues, adequately. The new foreign reporting requirements applying to the ownership of certain foreign property, FAPI, foreign affiliates, and foreign trusts should give Revenue Canada access to most of the necessary information to administer the rules properly. Further, requiring taxpayers to file this type of information annually may impose discipline on Canadian taxpayers with foreign-source income that contributes to improved compliance. However, these new reporting requirements will also impose significant compliance costs on taxpayers.

3. Australia

3.1 Overview of the treatment of foreign-source income

In general, Australian residents are subject to Australian tax on their worldwide income with a credit for any foreign taxes on foreign-source income. In certain circumstances, however, as explained below, certain items of foreign-source income are exempt from Australian tax. The residence of individuals is determined on a facts-and-circumstances basis. Resident individuals must be domiciled in Australia and not have a permanent place of abode outside Australia. This facts-and-circumstances test of individual residence is supplemented by a number of specific statutory rules. Corporations are considered to be resident in Australia if they are incorporated in Australia, or if their place of effective management is located there. A corporation will also be considered to be resident in Australia if it does business there, and more than 50 percent of the voting shares are held by Australian residents. However, this rule is easily avoided through the interposition of a foreign corporation.

Relief for international double taxation depends on the nature of the income and the level of foreign tax imposed on it. Portfolio income derived by Australian residents is included in income subject to a credit for any foreign withholding taxes on the income. Business income qualifies for exemption from Australian tax if it is comparably taxed in the foreign jurisdiction; otherwise, the income qualifies for a foreign-tax credit. Non-portfolio dividends received by an Australian

corporation from a foreign corporation qualify for either an exemption or a direct and an indirect foreign tax credit. Foreign-source employment income is exempt from Australian tax if the employee spends at least 91 days outside Australia and the income is subject to tax in the foreign jurisdiction.

Australia's foreign-source income rules are quite recent. The foreign tax credit system, the rules for the treatment of dividends from foreign corporations, and the CFC and FIF rules have all been introduced in the last 10 years. Consequently, the Australians have little experience with the practical operation of their foreign-source income rules.

3.2 Foreign-source income earned directly

3.2.1 Business income

Foreign-source business income derived by an Australian-resident corporation is exempt from Australian tax if the income is subject to tax in a listed country. The list of countries is the same for purposes of the CFC rules, and the exemption for non-portfolio dividends from foreign corporations is discussed in greater detail below. The foreign-source business income must be earned through a permanent establishment in the listed country, and must be subject to tax there. The subject-to-tax requirement means that the income must not qualify for exemption or a tax holiday, but there is no requirement that foreign tax actually be paid on the income.

The exemption for foreign-source business profits also extends to certain capital gains realized by Australian corporations. The exemption applies if:

- the property is depreciable property or real property used to earn income through a permanent establishment in a listed country;
- the gain must be subject to tax in a listed country; and
- the property must not be a "taxable Australian asset" (this concept is similar to "taxable Canadian property").

Capital losses from the disposition of similar property in a listed country are not taken into account for Australian tax purposes. Moreover, any expenses incurred in connection with such property are not deductible for Australian tax purposes.

The exemption for foreign-branch profits and capital gains derived by Australian-resident companies from listed countries reflects the fundamental tax policy decision to treat income earned in listed countries the same, regardless of whether the income is earned directly through a foreign branch or indirectly through a foreign corporation.

Other foreign-source business income, namely, that derived by Australian corporations from unlisted countries, that derived by Australian resident individuals, and that derived from a listed country but not through a permanent establishment located there, are included in the taxpayer's worldwide income, and the taxpayer qualifies for a foreign tax credit. Creditable taxes must be substantially equivalent to Australian income taxes. This general definition is supplemented by specific rules which provide, for example, that "soak-up" taxes or unitary taxes not imposed on a

water's-edge basis are not creditable. The limitation on the credit is computed on a worldwide basis for five baskets of income: interest, offshore banking income, certain income from foreign pensions, capital gains, and all other income. Despite the worldwide limitation, the ability to average high and low foreign taxes is limited because of the exemption for business income earned in high tax listed countries. Excess foreign taxes can be carried forward for five years for each basket. Further, excess foreign tax credits can be transferred to other corporations in the same corporate group. For this purpose, a corporate group includes only wholly-owned subsidiaries or corporations that are wholly owned by a common parent.

Foreign-source business losses, even with respect to unlisted countries, cannot be used to offset Australian source income. Instead, such losses are carried forward to reduce foreign-source business income in future years. Special rules prevent taxpayers from diverting passive income to foreign sources to offset active business losses.

3.2.2 Portfolio income

Foreign-source portfolio income derived by an Australian resident taxpayer must be included in income, and qualifies for a foreign-tax credit, as discussed in the preceding section. There is no distinction between portfolio and business income for individuals. Moreover, for Australian resident corporations, the important distinction is between business income earned in a listed country, and other income.

As discussed in the preceding section, certain capital gains realized by an Australian corporation qualify for exemption. Other capital gains, including all gains derived from the disposition of shares of a foreign corporation, are subject to Australian tax with a credit for any foreign taxes on the gain. Consequently, although foreign-branch profits and income earned through a foreign corporation from a listed country are treated similarly, the treatment of capital gains from the disposition of a foreign branch's or corporation's assets, differs from the treatment of capital gains on the disposition of shares of a foreign corporation.

3.3 Foreign-source income earned indirectly

3.3.1 Dividends from foreign corporations

The Australian tax treatment of dividends received from foreign corporations depends on four factors:

- the residence of the foreign corporation;
- whether the Australian taxpayer is an individual or a corporation;
- if the recipient is a corporation, the size of the corporation's interest in the foreign corporation; and
- whether the income of the foreign corporation has been attributed to the Australian shareholder pursuant to CFC rules or FIF rules.

If dividends are received from a foreign corporation by an individual resident in Australia, or by an Australian resident corporation out of income that has been previously subject to Australian tax pursuant to the CFC or FIF rules, the dividends are exempt from Australian tax in order to prevent international double taxation.

If an individual resident in Australia receives a dividend from a foreign corporation, the dividend is subject to Australian tax with a credit for any foreign withholding taxes on the dividend. The same treatment applies to a dividend received by an Australian corporation with an ownership interest of less than 10 percent in the foreign corporation.

Where a corporation resident in Australia receives a dividend from a foreign corporation in which it has at least a 10 percent interest, the dividend is subject to a special combined exemption/credit system. These dividends are referred to as non-portfolio dividends. The 10-percent ownership threshold is computed by reference to an Australian corporation's ownership of shares in the foreign corporation representing at least 10 percent of the voting power, value, or capital of the foreign corporation.

All non-portfolio dividends received by an Australian corporation from a foreign corporation resident in a listed country are exempt from Australian tax. The list of countries for purposes of the exemption for dividends is the same as that for purposes of the Australian CFC rules. Although the use of the same list for both purposes provides simplicity, it is questionable whether it is appropriate. In general, countries have been included in the list if they have corporate tax rates of 25 percent or more. Several countries are included in the list where it is possible for corporations to earn income that is not subject to a rate of tax comparable to the Australian rate (for example, Indonesia, Ireland, Greece, China, Portugal, Spain and Singapore).

Non-portfolio dividends received by Australian corporations from foreign corporations resident in unlisted countries may be either exempt or taxable, depending on the nature of the profits of the foreign companies. Dividends paid by such corporations are considered to be paid *pro rata* out of exempt and taxable profits. Exempt profits are those earned by a foreign corporation resident in an unlisted country from a business carried on in a listed country if the profits are subject to tax in the listed country and do not constitute "designated concession income," dividends received from a foreign corporation resident in a listed country, and income from Australia. Designated concession income consists of certain specified income that is exempt from tax or subject to a low rate of tax in a listed country. For example, income qualifying for the Belgian co-ordination centre incentive and capital gains derived by a New Zealand corporation constitute designated concession income. All other profits derived by a foreign corporation constitute taxable profits.

For non-portfolio dividends received from listed countries, the Australian system is considerably simpler than the Canadian system. All such dividends are exempt; therefore, there is no need for taxpayers to maintain complex surplus accounts. However, for non-portfolio dividends received from unlisted countries, Australian corporations must maintain records concerning the exempt and taxable profits of corporations resident in such countries.

The major deficiency of the Australian rules is that it is possible for Australian corporations to receive exempt non-portfolio dividends from foreign corporations resident in listed countries out of income that has not been subject to foreign tax comparable to Australian tax. The Australian system contains a number of anti-avoidance rules to prevent corporations from taking advantage of this exemption. For example, when a CFC shifts its residence from an unlisted to a listed country, the accumulated profits of the CFC are attributed to its Australian shareholders because once the CFC becomes resident in the listed country, any dividends paid by it will be exempt. This result is inappropriate, because some of the CFC's income may not be low-taxed passive income, which is targeted by the CFC rules. The appropriate theoretical result is that any non-portfolio dividends paid by the CFC once it has become resident in a listed country out of profits accumulated while it was resident in an unlisted country, should be taxable with a foreign-tax credit. However, because the Australian rules lack a system of surplus pots, this theoretical result is impossible. Similarly, where a foreign corporation resident in a listed country that is not a CFC receives a dividend from a foreign corporation in an unlisted country that is not a CFC, the dividend loses its character as taxable, and becomes exempt.

Two other factors are relevant in assessing the Australian system for taxing non-portfolio dividends from foreign corporations. First, there are no upstream loan rules; second, under the Australian imputation system, Australian corporations generally prefer to pay Australian tax rather than foreign tax.

Non-portfolio dividends received from foreign corporations resident in unlisted countries are subject to Australian tax with a direct and an indirect foreign-tax credit. The indirect foreign-tax credit applies to any number of tiers of foreign corporations, as long as the 10-percent ownership requirement is met. The limitation on the indirect foreign-tax credit operates on a worldwide basis, although as mentioned earlier, there is limited opportunity for averaging because non-portfolio dividends from corporations resident in listed countries are exempt from Australian tax.

Australia has a full imputation system. Income subject to Australian corporate tax is credited to a "franking account." Dividends paid out of this account carry a tax credit equal to the Australian corporate tax on the grossed-up dividend. Franked dividends paid to non-resident shareholders are not subject to the normal Australian withholding tax of 30 percent, whereas unfranked dividends are.

As described earlier, foreign-branch profits and non-portfolio dividends from foreign affiliates derived by Australian companies are exempt from Australian tax. Such exempt foreign-source income does not give rise to franking credits. However, in 1995 Australia introduced new rules under which dividends from foreign corporations that are exempt from Australian tax are allocated to a special "foreign-dividend account." Dividends paid by an Australian company to non-resident shareholders out of such an account are exempt from the Australian withholding tax. The account is, however, allocated to all shareholders, not just non-resident shareholders, even though resident shareholders do not derive any benefit from receiving dividends out of the foreign-dividend account.

The exemption from Australian withholding tax for dividends paid out of the foreign-dividend account was introduced as part of a regional headquarters regime designed to make Australia more attractive as a base for multinational corporations. However, the foreign-dividend account regime is available to all Australian resident companies with foreign affiliates, not just companies that qualify as headquarters companies.

3.3.2 Allocation of income and expenses

Australian source rules are undeveloped. Most rules are principally derived from tax treaties and are incorporated into Australian domestic law.

In principle, the Australian rules distinguish between expenses that are attributable exclusively to foreign income, expenses that are attributable to both foreign and domestic source income, and expenses that are not directly related to any source of income. The last expenses are allocated on the basis of net income. There are no statutory rules and little administrative guidance as to how these rules are to be applied. It would appear that most expenses are allocated on a factual tracing basis.

In principle, any expenses incurred by an Australian corporation to earn exempt foreign-source income, including exempt foreign-branch income and exempt non-portfolio dividends from foreign corporations, are not deductible in computing the Australian corporation's income. However, because the basic Australian approach to interest deductibility is factual tracing, in practice most Australian corporations are able to arrange their affairs so that interest expense is never traced to exempt foreign-source dividends. Apparently, the Australians are currently considering the introduction of interest apportionment rules to govern the allocation of interest to foreign-source income.

3.3.3 Limitations on deferral

3.3.3.1 CFC rules

Australia's CFC rules are targeted at income earned by foreign corporations that are controlled by Australian residents. Under the original proposals for taxing foreign-source income, which were published in 1988, any Australian resident corporation with a 10 percent or greater interest in a foreign corporation resident in an unlisted country would have been taxable on its *pro rata* share of the corporation's entire income. This system was theoretically simple, since there was no distinction between controlled and uncontrolled foreign corporations, or between active and passive income. Moreover, the CFC rules and the rules for non-portfolio dividends would have been totally integrated. Non-portfolio dividends from foreign corporations resident in both listed and unlisted countries would have been exempt, the former because their income would have been subject to foreign tax comparable to Australian tax; and the latter because their income would have been previously taxed under the Australian CFC measures.

In 1989, the original proposals were revised to recognize that the CFC rules should be focussed on protecting the Australian tax base from abuse. In contrast, the rules for taxing non-portfolio

dividends from foreign corporations are basic taxing rules aimed at eliminating international double taxation.

A foreign corporation is considered to be controlled by Australian residents if, at the end of the CFC's accounting period, five or fewer Australian residents, each of whom must own at least one percent of the shares, own 50 percent or more of the voting shares or the capital, or own shares entitled to 50 percent or more of the corporation's distributable income. In addition, where one Australian resident owns 40 percent or more of the shares of a foreign corporation, and no other single person owns more, that person will be considered to have *de facto* control. Further, if the tax authorities can show that five or fewer Australian residents effectively control a foreign corporation even though they own less than 50 percent of its shares, it will be considered a controlled foreign corporation. The basic control test for purposes of the definition of a CFC includes both indirect and constructive ownership rules.

As noted earlier, the Australian CFC rules are targeted at low-taxed passive income earned by CFCs. The designated jurisdiction approach is used to determine whether a CFC's income is subject to low foreign taxes. The regulations prescribe a list of approximately 60 countries. If a CFC is resident in one of these listed countries, it is presumed that the CFC's income is taxable at a rate that is roughly comparable to the Australian tax rate. Even if a CFC is resident in a listed country, however, if it earns certain "designated concession income" there, such income will be attributed to its Australian shareholders. Designated concession income consists of specific items or general categories of income that are not subject to tax in the listed country. A serious deficiency in the Australian rules is the inclusion of several countries on the list that do not tax all passive income at a rate comparable to the Australian rate.

Not all income earned by a CFC in an unlisted country is attributed to its Australian shareholders. Attributable income includes passive income and tainted sales and services income. For CFCs resident in listed countries, generally only designated concession income is attributable. Where a CFC in an unlisted country is engaged almost exclusively in active business operations, its passive income will not be subject to attribution. To qualify for this active-income exemption, the CFC must carry on business through a permanent establishment in its country of residence, keep accounts in accordance with Generally Accepted Accounting Principles (GAAP), and its passive income must be less than 5 percent of its gross revenue. If a CFC does not qualify for the active-income exemption, only its passive income is attributed to its Australian shareholders. In effect, therefore, the active-income exemption operates as a *de minimis* rule. As such, it allows Australian corporations to divert passive income to a CFC as long as it does not exceed 5 percent of the corporation's gross revenue. The active-income exemption also applies to CFCs in listed countries, but is based on designated concession income and rarely applies.

A *de minimis* exemption applies if the CFC is resident in a listed country and its attributable income is less than A\$50 000 or 5 percent of gross turnover.

Where a CFC's income is attributed to an Australian company that owns at least 10 percent of the CFC's shares, that company will be entitled to a credit against the Australian tax payable on the income for the foreign taxes paid by the CFC on its passive income. Other Australian

shareholders are entitled, in effect, only to a deduction for foreign taxes in computing the amount of the CFC's attributable income that is subject to Australian tax.

Losses of a CFC may be carried forward indefinitely, although they are quarantined in four separate categories. No consolidation is permitted of the profits and losses of CFCs of the same Australian corporation. However, effective consolidation may be achieved within 100-percent owned corporate groups.

Dividends received out of previously taxed attributed income are exempt and capital gains are reduced to the extent of previously taxed and undistributed attributable income.

As noted, attributable income includes passive income and tainted sales and services income. Passive income includes:

- dividends other than exempt non-portfolio dividends;
- interest and income from factoring but not including offshore banking income;
- income from annuities;
- rent if the property is leased to a related party, if the property is land outside the CFC's country of residence or in respect of which the CFC provides few services, or if the property is a ship or aircraft or container, unless significant services are provided by the CFC;
- royalties, unless the CFC created or improved the intangible property, the royalties are derived from a business and are not received from a related party;
- income from the sale of intangibles;
- income and capital gains from dispositions of "tainted assets"; and
- certain commodity and currency exchange gains.

A tainted asset is broadly defined to include all shares, all interests in partnerships and trusts, all derivative financial instruments, all debts, insurance policies, property held to earn tainted rental income, and all other assets except inventory and those assets used solely in carrying on a business. This definition is considerably broader than the comparable Canadian concept of property other than excluded property (i.e. property the disposition of which results in FAPI).

Tainted sales income includes income from the sale of goods by the CFC if:

- 1) the CFC acquired the goods from a related party resident or carrying on business in Australia, or if it sold the goods to such a person;
- 2) the CFC manufactured the goods and acquired the raw materials used to manufacture the goods from a related party residing or carrying on business in Australia, or sold the manufactured goods to such a person; or
- 3) the CFC produced the goods or manufactured goods from products produced by it and acquired material from which the products were produced from a related party residing or carrying on business in Australia, or sold the products to such a person.

If the CFC substantially alters, manufactures, or produces the goods sold by it, the income is excluded from tainted sales income. In this situation, the income is considered as resulting from the significant activities performed by the CFC rather than as income diverted to it.

Tainted services income includes:

- income from services rendered to a related party or a resident of Australia, or to a non-resident carrying on business in Australia;
- life insurance premiums from policies sold to related parties or to residents of Australia;
- income from the insurance of Australian risks or from insurance of a related party; or
- income from certain reinsurance.

Income from services provided by a CFC is not tainted income if the services are directly related to the goods manufactured, created or substantially altered and sold by the CFC.

3.3.3.2 FIF measures

Because the Australian CFC rules apply only to foreign corporations that are controlled by five or fewer Australian residents and only to Australian shareholders who own 10 percent or greater interests in the foreign corporations, it is relatively easy to avoid the application of them. Therefore, effective in 1993, FIF measures were introduced.

FIF measures apply to any equity interest in a foreign company, trust or life insurance policy, unless the interest qualifies for a specific exemption. In addition, FIF measures apply to interests in FIFs owned by CFCs.

Interests in foreign companies principally engaged in active business are exempt. Two alternative tests are used to determine the application of this exemption. The balance sheet method is based on a detailed examination of the company's assets. More than 50 percent of the gross value of such assets must be used in carrying on active business. Special look-through rules apply to interests in partnerships and share interests of more than 50 percent. The stock exchange listing method is a proxy for the balance sheet method because most small investors will not have access to the information necessary to apply the former method. Interests are exempt if the foreign company is listed on an approved stock exchange and classified as engaged in active business in accordance with five international sectoral indices that are widely used by brokers. The stock exchange listing method recognizes the interests of taxpayers in simplified compliance.

Exemptions are also provided for:

- widely held, publicly traded foreign banks and insurance companies;
- widely held, publicly traded foreign real property companies engaged in real estate development or commercial sales or leasing;
- conglomerates;

- trust funds established for investment in specified countries that prohibit non-residents from investing directly in companies listed on stock exchanges in those countries;
- *de minimis* holdings of FIF interests of less than A\$50 000;
- temporary residents of Australia; and
- interests in foreign pension funds.

If a resident of Australia owns interests in FIFs in excess of the *de minimis* exemption, there are three possible methods of taxation:

- the market value method, under which the taxpayer must include in income the annual increase in value and any distributions received in a year. This method applies if it is "practicable." Market value is determined on the basis of quoted stock exchange prices or redemption prices.
- the calculation method, under which the taxpayer must include his or her *pro rata* share of the income of the foreign company. The major difference between this method and the market value method is that under the former, accrued but unrealized gains in respect of the FIF's property are not taken into account. The calculation method will rarely apply because the taxpayer will not have access to the information required to determine his or her share of the FIF's income.
- the deemed rate of return method, under which the value of the taxpayer's interest is multiplied by the rate of interest on overdue taxes plus 4 percent. This method is similar to the Canadian method under section 94.1. It is the residual method.

The Australian FIF measures contain relief provisions with respect to foreign taxes, subsequent dividends and subsequent capital gains and losses.

3.4 Enforcement and administrative issues

Australia has recently moved to a full self-assessment system. In light of this move, there is a concern about minimizing the compliance burden of complex legislation such as the CFC and FIF rules. Australia does not have comprehensive foreign reporting requirements such as the proposed Canadian rules. Instead, taxpayers are required to maintain appropriate documentation to support their reported taxes, and this information must be provided to the tax authorities during audit on request. There is not yet enough experience with the rules for taxing foreign-source income to know if there are any serious enforcement and administrative problems.

4. France

4.1 Overview of the treatment of foreign-source income

Individuals resident in France are subject to tax on their worldwide income. However, corporations are taxable on a territorial basis, in accordance with which French and foreign corporations are subject to French tax only on income sourced in France. In other words,

corporations resident in France are not subject to French corporation tax on foreign-source business or investment income that is ancillary to a business carried on outside France.

There are detailed rules governing the residence of individuals for income tax purposes. Although individuals resident in France are taxable on their worldwide income, foreign-source employment income is exempt from tax if:

- the income is subject to foreign tax of at least two thirds of the French tax otherwise payable on the income; or
- an employee is employed abroad for more than 183 days in any 12-month period in the construction or resource industries, irrespective of the foreign tax on the income.

Although such income is exempt from tax, it is taken into account in determining the rate of tax on other income subject to French tax.

Because French corporations are subject to tax on a territorial basis, a distinction between resident and non-resident corporations is usually unnecessary. In general, income derived by a French corporation directly through a foreign branch operation and dividends derived through a foreign subsidiary are exempt from French corporation tax.

Relief from international double taxation is provided by a deduction of foreign taxes. However, if there is a treaty between France and the foreign country, foreign withholding taxes on dividends, interest and royalties are creditable against French tax. As noted earlier, with respect to the business income of corporations, relief from international double taxation is provided by an exemption for the foreign-source income.

The territorial principle is subject to two exceptions under which French corporations may take foreign-source income and losses into account, subject to the prior approval of the tax authorities. First, a French corporation may elect to be taxed on its worldwide profits (*bénéfice mondial*). Second, a French corporation may elect to be taxed on a worldwide consolidated basis with respect to its French and foreign subsidiaries that are at least 50 percent owned by the French parent company (*bénéfice consolidé*). Only a few of the largest French multinationals have elected to be taxed on either of these consolidated bases. Under the consolidation approach, foreign taxes are creditable against the French corporation tax, subject to a per-country limit. Any excess credit for a year may be carried forward for five years or deducted in computing income.

4.2 Foreign-source income earned directly

4.2.1 Branch income

The profits of a foreign branch of a French corporation are generally exempt from French corporation tax (subject to the consolidation rules noted above). A foreign branch is roughly equivalent to the permanent establishment concept in bilateral tax treaties. However, the exemption also extends to foreign activities that constitute a "complete commercial cycle," even if there is no fixed place of business outside France. There is a significant body of jurisprudence dealing with the source of business income for purposes of applying the territorial principle. In

general, to qualify for exemption, foreign-source income must be related to some relatively independent and self-contained activity in the foreign country. The exemption is not conditional on the foreign-source income's being subject to tax in the foreign country.

The territorial principle applies only to business income. Passive investment income derived from foreign sources is subject to French corporation tax, unless the income is effectively connected with a foreign business.

As discussed in more detail below, because foreign-source business income derived by French corporations is exempt from corporation tax, expenses incurred in earning such income are not deductible, and foreign-source business losses are not taken into account. However, in certain limited circumstances involving start-up losses from the establishment of foreign sales offices, research facilities or industrial establishments, a French corporation is entitled to a special reserve in computing its income for French corporation tax. This reserve is available for the first five years of the foreign venture, then is recaptured over the following five to 10 years. The reserve is not available for foreign operations established in certain tax-haven countries. It is available not only for foreign-branch operations, but also for foreign investments through a foreign subsidiary if the French corporation has at least a 10 percent interest in the subsidiary's capital.

4.2.2 Portfolio income

Investment income from sources outside France which is derived by individuals or corporations resident in France is subject to French tax. Similarly, capital gains realized from the disposition of property located outside France, including the shares of a subsidiary corporation, are subject to French tax. In general, foreign withholding taxes on dividends, interest and royalties derived by French residents from foreign sources are deductible only in computing income. If, however, there is a double-taxation treaty between France and the other country, the foreign taxes are creditable against French tax.

4.3 Foreign-source income earned indirectly

4.3.1 Dividends from foreign affiliates

If a French corporation owns at least 10 percent of the voting shares of another corporation, whether French or foreign, any dividends it receives from the other corporation are exempt from French corporation tax. Alternatively, the participation exemption will apply if the French corporation owns shares in a foreign corporation that are worth at least FFr 150 million. The minimum-share ownership requirement must be satisfied at the time of the payment of the dividend, and the French corporation must have originally subscribed for the shares or must undertake to retain them for at least two years. The participation exemption is elective. If the French corporation elects not to have the exemption apply, the dividend will be included in income. For dividends from other French corporations, however, the tax will be offset completely by the tax credit (*avoir fiscal*) that accompanies the dividend. The exemption is always advantageous with respect to dividends from foreign corporations that do not carry any tax credit.

Before 1993, French corporations were precluded from deducting expenses equal to 5 percent of the dividends received. This amount was considered to represent the expenses of holding the shares in the subsidiary corporation. In effect, the participation exemption was limited to 95 percent of the amount of the dividends received from the foreign corporation.

Some French corporations, such as financial institutions and real estate companies, are specifically precluded from the benefit of the participation exemption. Further, the exemption does not apply if the French parent company elects to be taxed on a consolidated basis.

If a French corporation is not subject to tax on dividends received from foreign corporations, it is subject to a compensatory tax called the *précompte mobilier*. The function of this *précompte* is to ensure that the dividend tax credit received by French shareholders of French corporations is supported by the tax paid at the corporate level. The *précompte* is imposed only on dividends paid out of non-taxable profits. The amount of the *précompte* is one third of the dividends received from affiliated companies, plus any withholding taxes on dividends received from foreign corporations resident in treaty countries. Any such foreign withholding taxes are creditable against the amount of the *précompte*. For purposes of the *précompte*, dividends are considered to be paid first out of taxable profits of the immediately-preceding year, then out of taxable profits for the five preceding years, and finally out of non-taxable profits.

4.3.2 Allocation of income and expenses

France does not have any statutory rules dealing with the allocation of expenses to exempt foreign-source income. Under general principles, expenses that are directly related to exempt foreign-source income are non-deductible. Further, as a general proposition, expenses which do not relate to any particular income source may be apportioned between taxable and tax-exempt income. However, interest expense incurred by French corporations earning exempt foreign-source income is fully deductible.

4.3.3 Limitations on deferral

4.3.3.1 CFC rules

The French CFC rules have been in place since 1980. The most striking feature of these rules is that they apply only to French corporations that own, directly or indirectly, 10 percent or more of the shares of a low-taxed foreign corporation at the end of the foreign corporation's year. Consequently, the CFC rules are co-extensive with the participation exemption for dividends from foreign corporations described earlier. When the French CFC rules were originally adopted, they applied to French corporations that owned a 25-percent or greater interest in a foreign corporation. The lower 10 percent ownership requirement became effective in 1992 with a 10-year grace period for existing structures. The CFC rules also apply to investments in foreign corporations exceeding FFr 150 million, even if the French corporation owns less than 10 percent of the share capital. To prevent corporations from circumventing the rules by setting up a branch instead of a subsidiary in a foreign country, the rules also apply to foreign branches, partnerships, and other non-corporate entities in which French corporations have a 10-percent or greater interest.

The system achieves considerable simplicity by making the CFC rules and the participation exemption co-extensive. However, there are clear costs. For example, because the CFC rules do not apply to individuals, there are probably significant avoidance opportunities through the use of CFCs. Also, there is a fundamental question of fairness in subjecting a domestic corporation that owns at least 10 percent of a foreign corporation to current domestic tax on the undistributed income of the foreign corporation, when the domestic corporation does not necessarily have the power to control the distribution of the income.

The minimum ownership requirement is supported by constructive ownership rules to prevent taxpayers from fragmenting the ownership of shares in foreign corporations among related persons. For lower-tier foreign corporations, the taxpayer's ownership interest is determined by multiplying the interest in the first-tier corporation by its interest in the second tier, and so on.

The French CFC rules apply only to foreign corporations established in a "privileged" tax regime which, by administrative guidelines, is considered to be a country in which the tax is less than two thirds of the French tax. This test is based on a comparison of the actual tax paid by the foreign corporation and the French tax that it would have paid if it were resident in France. There is an unofficial list of tax havens, and it appears that the application of the measures is restricted to foreign corporations established in listed countries.

Unless a CFC is exempt, all of its income is subject to attribution. In other words, the French rules do not distinguish between tainted and other income; instead, they apply on an entity basis. Only French corporations with 10 percent or more of the shares, or shares worth FFr 150 million, are taxable on their share of the foreign corporation's income, which must be computed in accordance with French tax law. Accordingly, CFCs are entitled to the participation exemption, which means that international holding companies can be used effectively.

A foreign corporation is exempt if more than 50 percent of its revenue is derived from local industrial or commercial activities. Thus, the exemption involves two conditions: the nature of the business activities must be primarily industrial or commercial, and more than 50 percent of the CFC's total turnover must be derived from industrial or commercial activities in the foreign country. International finance companies cannot qualify for this exemption. However, a foreign corporation that qualifies for the exemption can shelter a considerable amount of passive income.

Where an amount is included in a French corporation's income in respect of the undistributed income of a CFC, the French corporation is entitled to a credit for any foreign taxes paid by the CFC on its income, and for any foreign withholding taxes on dividends. Subsequent dividends received by a French corporation out of previously taxed income are not taxable (even to the extent not covered by the participation exemption). There is no relief, however, for subsequent capital gains. A CFC's losses may be carried forward for five years.

4.3.3.2 FIF rules

France does not have FIF rules. The absence of such rules is not surprising given that individuals resident in France are not subject to the CFC rules. Since a French individual can establish a CFC in a tax haven to earn passive income, it is unnecessary to have rules dealing with FIFs that are widely held by such individuals.

France does have other anti-abuse rules that might be applied to tax-haven corporations in which French residents have an interest. However, the need for CFC and FIF rules applicable to individuals resident in France seems clear.

4.3.3.3 Other rules

The French system contains other rules for dealing with the abuse of tax havens. In addition to exchange controls and the abuse of rights doctrine, there are two specific provisions with respect to tax havens:

- amounts paid to a person resident in a tax haven for services rendered in France are taxable in France if the person who actually performs the services is resident in France and certain other conditions are satisfied; and
- interest, royalties and fees for services paid by a resident of France to a resident of a tax haven are not deductible, unless the taxpayer can prove the transaction is genuine and the amount paid is reasonable.

4.4 Enforcement and administrative issues

French corporations that own at least 10 percent of the shares or shares worth FFfr 150 million of a foreign corporation resident in a tax haven must file detailed information concerning the income of the foreign corporation and attach the corporation's financial statements. They must also report the amount of taxes levied and tax credits available, the aggregate CFC profits subject to French tax and the aggregate profits of CFCs distributed to the French corporation. In effect, the French corporation must provide all of the information necessary for the tax authorities to determine whether the active business exemption applies, and whether the foreign country is a tax haven and to determine the amount of the foreign corporation's income to be included in the French corporate shareholder's income if the CFC rules apply. The filing requirements apply even if the CFC qualifies for the active business exemption.

5. Germany

5.1 Overview of the treatment of foreign-source income

Individuals and corporations resident in Germany are taxable on their worldwide income. However, this fundamental principle is subject to numerous exceptions. Indeed, the treatment of foreign-source income derived by German residents has developed over time on an *ad hoc* basis, without any consistent underlying tax policy.

An important factor in the German treatment of foreign-source income is the existence of a tax treaty with the country in which the income is earned. Although the significance of tax treaties in the German system goes well beyond the role of the designated treaty country concept in the Canadian foreign affiliate rules, there are some similarities between the approaches of the two countries.

An individual is considered to be a resident of Germany for income tax purposes if the individual's domicile or customary place of abode is in Germany. Both of these broad tests are determined on the basis of all of the facts and circumstances; however, the maintenance of a dwelling in Germany available for the taxpayer's use is usually determinative. Also, if a person is physically present in Germany for more than six months in any 12-month period, that individual will be considered to be resident in Germany.

Corporations are considered to be resident in Germany for income tax purposes if they are incorporated under German law, or if they have their principal place of management or head office there. A corporation's principal place of management for this purpose is considered to be located where the day-to-day decisions concerning the corporation's affairs are made (rather than where the board of directors meets).

Although residents of Germany are subject to tax on their worldwide income, several items of foreign-source income are exempt:

- employment income from specified activities such as construction, exploration and mining, if certain conditions are met;
- income from international shipping is taxable at 50 percent of the usual rate; and
- certain dividends received by German corporations from foreign affiliates in treaty countries.

In general, Germany provides relief from international double taxation by a combined credit/exemption system broadly similar to the Canadian system. The basic element is a foreign tax credit, which is limited to the amount of German tax of the foreign-source income earned in each foreign country. Alternatively, taxpayers can elect to deduct foreign taxes paid to particular countries.

Under German tax treaties, business income of a foreign permanent establishment and dividends from foreign subsidiaries of German companies are usually exempt from German tax. Most of Germany's recent tax treaties limit the exemption for branch profits and intercompany dividends to income derived exclusively, or almost exclusively, from an active business. If the exemption is not available, the foreign taxes are creditable. Since Germany has an extensive tax treaty network, most business income derived by German taxpayers is effectively exempt.

5.2 Foreign-source income earned directly

5.2.1 Branch income

If a German individual or corporation carries on business through a permanent establishment located in a country with which Germany has a tax treaty, the business profits attributable to the

permanent establishment are exempt from German tax. The specific requirements for exemption vary from treaty to treaty. In general, there must be an active business carried on in the foreign country and the income derived must be subject to foreign tax. This exemption for business profits often includes interest, dividends, royalties and capital gains that are ancillary to the active business. Similarly, income derived by residents of Germany from real property located in a foreign country with which Germany has a tax treaty is generally exempt from German tax.

If a resident of Germany derives foreign-business income from a branch operation in a country with which Germany does not have a tax treaty, the income is subject to tax with a credit for the foreign taxes on the income. The foreign-tax credit is also available in certain circumstances where a treaty exemption does not entirely eliminate international double taxation. The foreign-tax credit applies only to foreign taxes that are equivalent to German income taxes. The limitation on the credit is calculated on a per-country basis.

In principle, foreign-source business losses are not deductible in computing a German resident's worldwide income, unless the losses are from a business carried on in a non-treaty country. If the business is carried on in a treaty country, the taxpayer can elect to deduct losses from certain specified business activities in determining German source income. However, if the foreign business becomes profitable, the treaty exemption will not apply to the extent of the losses previously deducted, unless the taxpayer can establish that the foreign country does not provide for a carry-over of business losses.

Excess foreign-tax credits for any year cannot be carried forward. Rather than losing the excess foreign taxes, a taxpayer can elect on a per-country basis to deduct all of the foreign taxes paid to that country.

As an alternative to a tax credit, a taxpayer may request that foreign-source income from a particular country or countries be subject to a flat-rate tax of 25 percent. This flat-rate taxation is available in respect of foreign business income from a permanent establishment and also extends to dividends that a German corporation receives from a foreign corporation in which it owns at least 10 percent of the shares.

5.2.2. Portfolio income

The German tax treatment of foreign-source income differentiates between portfolio and business income. The latter is generally exempt if it is derived through a permanent establishment in a treaty country. Portfolio income, on the other hand, is exempt from German tax only if it is ancillary to business income earned through a permanent establishment in a treaty country. Generally, portfolio income is subject to German tax with a credit for any foreign withholding taxes on the income, subject to a per-country limitation. Any excess foreign taxes cannot be carried forward; however, there is an optional deduction for the foreign taxes.

5.3 Foreign-source income earned indirectly

5.3.1 Dividends from foreign affiliates

The tax treatment of dividends received from foreign corporations depends on the percentage share ownership of the German corporation, the existence of a tax treaty between Germany and the foreign country in which the corporation is resident, and whether the foreign corporation is resident in a developing country. Dividends received by German corporations owning less than 10 percent of the shares of a foreign corporation, as well as dividends received by German individuals, are subject to German tax with a credit for any foreign withholding taxes on the dividends, as described earlier. If, however, a German corporation owns 10 percent or more of the shares of the foreign corporation, a combined credit/exemption system similar to the Canadian system applies. If the foreign corporation is resident in a treaty country, the dividend is exempt, subject to the application of an activity proviso in the treaty, as described earlier. If the foreign corporation is engaged almost exclusively in active business in a developing country, the dividends are included in the German corporation's income, but a foreign tax credit equal to the amount of German tax will be allowed. In effect, such dividends are exempt from German tax.

In all other cases, the dividend is included in the German corporation's income. Further, the corporation is entitled to a credit for any foreign withholding taxes on the dividend, and for any underlying foreign taxes paid by the foreign corporation on the income out of which the dividend was paid. The indirect foreign tax credit is available only if the foreign corporation is engaged primarily in an active business during the year. The indirect credit is available only for two tiers of foreign corporations, if the 10 percent ownership test is met both directly and indirectly and both corporations are established in the same country or are functionally related. The credit is available only for dividends paid by second-tier affiliates if the dividend is paid in the same year that the first-tier affiliate pays a dividend to the German corporation. There is no credit for any withholding tax on the dividend paid by the second-tier affiliate to the first-tier affiliate. The indirect foreign tax credit is subject to a per-country limitation. No carry-over is available for excess foreign tax credits.

Prior to 1994, any dividends received by a German corporation that were exempt from German tax (and other exempt foreign-source income derived by the German corporation) were subject to a special compensatory tax of 36 percent when distributed in the form of dividends to German shareholders. This compensatory tax was levied in recognition of the dividend tax credit that is available to German-resident shareholders. Non-resident shareholders do not qualify for the dividend tax credit; accordingly, they were entitled to receive a refund of the compensatory tax.

Since 1994, exempt foreign-source income may be passed free of compensatory tax to German corporate shareholders and non-resident shareholders. The latter group remains subject to withholding tax at the rate of 25 percent, subject to reduction by treaty. German individual shareholders must include the dividend in income, but are not entitled to any dividend tax credit.

Corporations are still required to keep detailed surplus accounts in respect of corporate income that has borne different rates of corporate tax, as well as exempt income. Dividends are deemed to be paid first out of income that was subject to the highest rate of German corporate tax. After

all surplus that has borne corporate tax has been exhausted, dividends are then deemed to be paid out of four baskets of exempt income. Of these baskets, exempt foreign income is deemed to be paid first.

5.3.2 Allocation of income and expenses

Germany does not have sophisticated rules with respect to the allocation of expenses to foreign-source income. Case law has established that expenses that are "directly connected" to foreign-source income must be allocated to such income for purposes of deductibility and the computation of the limitation on the foreign-tax credit. There are no rules with respect to the allocation of general expenses. Even if expenses are directly connected with exempt foreign-source income, their deduction is disallowed only to the extent of the exempt income. Therefore, in the case of interest expense on money borrowed to finance the purchase of shares of a foreign affiliate, the interest is fully deductible if no dividends are received (or where the foreign affiliate is a CFC, deemed to be received) during the year. The apparent justification for this rule is that the gain on the sale of the shares of the foreign affiliate is subject to full German tax. However, a recent amendment has exempted capital gains on shares of foreign corporations. Apparently, this issue is currently under review in Germany.

5.3.3 Limitations on deferral

5.3.3.1 The CFC rules

The German CFC rules were adopted in 1972 and are broadly patterned on the U.S. Subpart F rules. The policy of the German CFC rules is focussed precisely on tax-haven jurisdictions, rather than on tainted income earned by CFCs in all foreign countries.

A CFC is defined as a foreign corporation in which German residents own more than 50 percent of the number of shares or more than 50 percent of the voting rights attached to the corporation's shares at the end of its year. There is no minimum ownership requirement, and control does not need to be concentrated in a small group of German residents. The control test is supplemented by indirect and constructive ownership rules.

The tainted income of a CFC for a particular year is attributed to the German shareholders in proportion to their percentage ownership of the shares of the foreign corporation at the end of the year. There is no minimum shareholding requirement for this purpose.

The German CFC rules apply only to CFCs whose income is subject to "low taxation" in the foreign country. Low taxation is considered to exist if the country in which the foreign corporation is resident imposes tax at a rate of less than 30 percent. For this purpose, taxes on the CFC's income other than its tainted income are ignored, as are taxes paid to other foreign countries. Technically, the 30-percent foreign tax rate test must be calculated after the tainted income is computed in accordance with German tax rules. Therefore, the test is based on the effective rather than the nominal foreign tax rate.

Special rules apply for determining whether dividends received by a CFC are subject to low taxation. If the CFC qualifies for a participation exemption in the foreign country, the dividend is deemed to be subject to low taxation. This deeming rule also applies even if the foreign country in which the CFC is resident allows the CFC an indirect foreign-tax credit in respect of the dividend.

Tainted income of a second- or lower-tier CFC is attributed to its direct corporate parent rather than to the German shareholders. As a result, such tainted income is always considered to be subject to low taxation, since the corporate shareholder has not paid any tax on the income unless its country of residence applies CFC rules. This rule is intended to limit the use of multi-tier corporate structures.

To provide guidance for taxpayers and tax officials, there is a published list of countries whose effective tax rates are considered to be less than 30 percent. This list was published in 1974 and has not been updated since. The list has no binding effect; however, the tax officials rarely go behind or beyond the administrative list.

Only tainted income of a CFC is attributed to the German shareholders. Tainted income is defined negatively as income other than that derived from certain specifically listed active businesses, and certain dividends from active business subsidiaries. It includes passive investment income and certain base company sales and services income. In general, sales income derived by a CFC is not tainted if the goods are both purchased and sold outside Germany. However, even if the goods are either purchased or sold in Germany, the income will not be tainted if the transactions are with unrelated parties, or if the foreign corporation carries on genuine business operations in which the German shareholders and their affiliates do not participate. Similar rules apply to income from services provided by a CFC. Income from financing is considered not to be tainted income if the funds are borrowed by the CFC exclusively on foreign-capital markets and loaned on a long-term basis to active businesses outside Germany. In general, the definition of tainted income is not as broad as that in the United States definition, but it is broader than the Canadian definition of FAPI.

Dividends received by a CFC constitute tainted income except if the CFC owns at least 25 percent of the shares of the payer corporation, and :

- both corporations are established in the same country and the payer corporation derives its income almost exclusively from active business operations; or
- the payer corporation derives its income almost exclusively from active business operations, and the recipient corporation's interest in the payer corporation is functionally related to an active business carried on by the recipient corporation.

In addition, dividends received by a CFC are excluded from tainted income if they would have qualified for the participation exemption, had they been received directly by the German shareholder.

Tainted income is computed in accordance with German tax rules for each CFC separately.

Tainted income of a CFC attributed to its German shareholders is deemed to be a dividend for purposes of applying the participation exemption in any tax treaty. The tainted income of a second- or lower-tier CFC is not attributed directly to the ultimate German shareholders; rather, it is attributed to the immediate parent company. As explained earlier, such attributable income is always subject to low foreign taxation, with the result that it is attributed to its shareholders.

The German rules provide a *de minimis* exemption for CFCs with passive income not exceeding DM 120,000 or 10 percent of gross income.

In effect, the German CFC rules provide an exemption for tainted income earned by CFCs in some treaty countries. This result follows because the tainted income is treated as a dividend and most of Germany's tax treaties provide an exemption for dividends that German corporations receive from foreign corporations in which they own at least a 10-percent interest, subject to the activity proviso discussed earlier. Therefore, the CFC rules apply only to CFCs in non-treaty countries, or to those in treaty countries where the participation exemption is restricted to active business income.

Foreign taxes paid by a CFC in respect of its tainted income are deductible for purposes of the German CFC rules, although German shareholders are entitled to elect to credit such foreign taxes. The limitation on this credit is computed on an overall basis in respect of the tainted income of the German taxpayer's CFCs. Relief for dividends out of previously taxed tainted income is provided by means of a refund. If a shareholder receives dividends from a CFC in excess of the tainted income for the year, the tax paid on tainted income for four prior years will be refunded to the extent of the excess. A similar refund is provided where a German shareholder has previously paid tax in respect of a CFC's tainted income and then disposes of the CFC's shares at a gain.

A tainted loss incurred by a CFC in a year may be carried forward against its tainted income in the next five years. A CFC's tainted income is not reduced by non-tainted losses. There is no provision for consolidating the tainted income and losses of several CFCs, although tainted losses in multi-tier CFCs are essentially consolidated as a result of the manner in which tainted income is calculated.

5.3.3.2 Foreign investment funds

The German tax treatment of FIFs depends on whether the foreign fund qualifies for distribution in Germany. If it is a qualifying fund, it is treated in the same manner as a domestic fund: distributions are included in the German shareholder's income and a credit is allowed for any foreign withholding taxes on the distribution; distributions of capital gains are not included in income; the FIF's undistributed passive income (dividends and interest, but not capital gains) is attributed to the German shareholders whether or not the fund is controlled by German residents; and where a shareholder disposes of an interest in the fund during the year, the shareholder must include in income "interim profit income," that is, interest income of the fund that has not previously been taxed as a distribution or deemed distribution. This generous treatment of investments in FIFs is conditional on a number of requirements, including the provision of information to the German tax authorities.

The tax treatment of investments in non-qualifying funds depends on whether the fund appoints a German agent to deal with the German tax authorities. In this case, investments will be entitled to the same treatment as those in qualifying funds, except that taxable distributions, as well as allocated undistributed profit, include capital gains.

Investments in other offshore funds are subject to more onerous taxation. German shareholders of such funds are required to include in their income the actual distributions received from the fund and 90 percent of the increase in the value of their interests in the fund during the year. Even if there has been no increase in value, a minimum of 10 percent of the value at the end of the previous year must be included in income. When the interest in the fund is sold or redeemed, the investor must include in income 20 percent of the sale price or redemption price.

Finally, Germany introduced legislation in 1992 to supplement the CFC rules and to prevent the abuse of the participation exemption in treaties. Under these rules, the treaty exemption for dividends is denied if the foreign corporation earns passive investment income. The legislation applies to foreign corporations that are not controlled by German residents, but only to German shareholders who hold at least 10 percent of the shares of the foreign corporation. In most of Germany's recent treaties, the participation exemption is available only for foreign affiliates engaged almost exclusively in active business. Therefore, the denial of the treaty exemption is generally relevant only with respect to older treaties. The denial applies if more than 50 percent of the foreign affiliate's investment income is passive and the foreign affiliate is subject to foreign tax of less than 30 percent. There are exemptions for foreign affiliates engaged in active businesses and foreign holding companies. An exemption for foreign finance companies was replaced in 1994. The current rule is that 60 percent of income derived from financing foreign permanent establishments or related foreign corporations engaged in an active business is subject to attribution under the combined CFC and FIF rules.

5.4 Enforcement and administrative issues

German taxpayers are under an obligation to disclose all of the facts relevant to the calculation of their tax liability and to produce any relevant documents with respect to transactions or events outside Germany. They must also file a special information return with respect to the establishment or acquisition of any foreign business or investments in foreign corporations of 10 percent or more.

Tax authorities have broad powers to demand information, books and records from German shareholders of foreign corporations. No statutory exceptions are recognized with respect to the shareholder's obligation. However, in practice, it is likely that any demand for information would not be enforceable unless it was reasonable.

6. United States

6.1 Overview of the treatment of foreign-source income

The United States has by far the most complicated and sophisticated rules for taxing the foreign-source income of its residents.

Unlike most countries, the United States taxes both resident individuals and citizens on their worldwide income. An individual is considered to be a resident of the United States for income tax purposes if he possesses a green card or is physically present in the United States for 183 days or more. A supplemental test is based on physical presence over a period of three years, but this test can be rebutted if the individual establishes that his tax home is in another country and he has a closer connection to that country than to the United States. The closer connection test is based on facts and circumstances. For corporations, the United States uses a place-of-incorporation test of corporate residence. A corporation's place of management is irrelevant.

The United States does not consider acquiring residence or giving up residence to be taxable events, although the introduction of such rules is currently under consideration by Congress. However, taxpayers who give up U.S. citizenship to avoid tax continue to be subject to U.S. tax for a period of 10 years. The United States has special rules to prevent dual-resident companies from deducting losses that are also deductible in the foreign country.

The United States is the only country with detailed statutory source of revenue and expense rules. These rules differ depending on whether they are being used for the purpose of computing U.S. source income of non-residents or foreign-source income of U.S. residents for purposes of the foreign tax credit.

6.2 Foreign-source income earned directly

6.2.1 Business income

The United States provides a limited exemption for certain foreign-earned income of individuals. This exemption is available only if the recipient resides or is physically present outside the United States for a substantial portion of a year. This exemption is similar to the Canadian overseas employment exemption.

Apart from this foreign-earned income exemption, the United States uses a credit system to provide relief for international double taxation with respect to foreign-source income earned both directly and indirectly through a foreign corporation. The taxpayer always has the option of deducting rather than crediting foreign taxes. In contrast to most countries that define creditable foreign taxes as generally comparable to domestic taxes, the United States has detailed statutory rules that set out the criteria that a foreign income tax must meet in order to be creditable.

In general, the foreign-tax credit cannot exceed the U.S. tax on the foreign income. The limitation is applied separately to several baskets of foreign income. Within each basket, a worldwide limitation is applied that permits the averaging of high and low foreign taxes on income within the basket. In general, these baskets differentiate between passive income and active business income.

The United States has very complex rules with respect to the treatment of foreign-source losses. An overall loss in any particular basket of foreign-source income is not deductible against U.S. source income if there are positive balances in any of the other baskets. A foreign loss from one

basket must be allocated to other baskets with positive foreign-source income proportionately based on the amount in each basket as a proportion of total foreign income. Allocating the loss from one basket to another has the effect of reducing the creditable taxes in the other basket. Special rules are then required to deal with the situation where there is positive income in a subsequent year in a basket whose loss has been allocated to another basket in a previous year. Excess credits in any basket can be carried back two years and carried forward five years within the same basket.

Where a foreign loss reduces U.S. income, a special recapture rule applies, under which foreign-source income for a subsequent year is recharacterized within limits as U.S. source income, thus reducing the foreign-tax credit for the year. Gains on the disposition of foreign business property are also subject to recharacterization as domestic source gains to offset previously deducted foreign-source losses.

If a U.S. taxpayer participates in an international boycott (i.e. agrees not to do business with a particular country), the taxpayer may be subject to special tax penalties, such as the reduction of available foreign-tax credits. Failure to comply with certain foreign information reporting requirements may also result in the loss of foreign-tax credits.

6.2.2 Portfolio income

As indicated earlier, the United States uses a credit system for all types of foreign-source income. Thus, any portfolio income earned by a U.S. resident or citizen from foreign sources will be included in the taxpayer's worldwide income and will be subject to U.S. tax. The taxpayer is entitled to a credit for any foreign taxes levied on the income, subject to the basket limitations discussed earlier. In general, separate baskets are prescribed for portfolio income.

6.3 Foreign-source income earned indirectly

6.3.1 Dividends from foreign corporations

The United States does not provide similar treatment for foreign branches or subsidiaries of U.S. corporations. Foreign-branch income is taxable on a current basis, while income earned by foreign corporations is taxable only when received in the form of dividends, subject to the CFC rules discussed below. Dividends that U.S. residents or citizens receive from foreign corporations are included in income and subject to U.S. tax with a credit for any foreign withholding taxes on the dividends, subject to the basket limitation discussed earlier. However, where a U.S. corporation receives a dividend from a foreign corporation in which it owns 10 percent or more of the voting shares, the corporate shareholder is entitled to an indirect foreign-tax credit in respect of the foreign taxes paid by the foreign corporation on the income out of which the dividend was paid.

The U.S. indirect foreign-tax credit is available only for three tiers of foreign corporations. At each tier there must be a direct interest of at least 10 percent in the voting shares. In addition, the U.S. corporation must have an indirect interest of at least 5 percent at each tier.

The computation of the indirect foreign tax credit in the United States is very complex. Rules are provided to attribute dividends paid by a foreign corporation to the profits of particular years. In addition, foreign taxes paid by the foreign corporation are attributed to dividends pursuant to detailed allocation rules. The rules for co-ordinating the basket limitations on the foreign-tax credit and the rules for computing the indirect foreign tax credit are also extremely complex. The purpose of the rules is to make the basket limitations apply through tiers of foreign corporations. The amount of foreign tax creditable for years after 1986 with respect to any particular dividend is the proportion of the total foreign-tax paid for all years after 1986, to and including the year in which the dividend is paid, that the dividend is of the foreign corporation's undistributed earnings for years after 1986.

6.3.2 Allocation of income and expenses

The United States is the only country with detailed statutory source rules for both gross income and expenses. These rules are used for purposes of the limitation on the foreign-tax credit. In other words, a foreign tax credit is allowed only to the extent that the foreign tax on the foreign-source income does not exceed the U.S. tax payable on that income.

It must be noted that the United States does not attempt to deny the deduction of expenses allocated to foreign-source income. Such expenses are deductible in the year in which they are incurred. Instead, when a dividend is received from a foreign corporation, the expenses are allocated to the foreign-source income for purposes of computing the limitation on the indirect foreign tax credit. Subject to a few narrow exceptions, interest is allocated to all categories of gross income ratably, based on the assumption that capital is fungible; it is then apportioned between U.S. and the various categories of foreign-source income based on the ratio of the tax book value of the taxpayer's assets in each category to the tax book value of all the taxpayer's assets. The result of allocating expenses to foreign-source income is that the amount of the credit is reduced, and this is equivalent to the denial of the deduction of the expenses if the timing aspects of the problem are ignored. The United States does not deal with the timing aspect of the problem, namely, that the interest is deductible in the year in which it is incurred but the dividends from the foreign corporation are included in income only when received.

6.3.3 Limitations on deferral

6.3.3.1 CFC rules

The United States was the first country to adopt CFC rules. The foreign personal holding company rules were adopted in 1937 to deal primarily with the problem of incorporated pocketbooks. In 1962, the United States adopted the Subpart F rules in an attempt to deal more comprehensively with the problem of controlled foreign corporations used to defer or avoid U.S. tax.

U.S. resident shareholders of a foreign personal holding company are subject to U.S. tax on the company's undistributed and distributed income. A foreign personal holding company is a foreign company more than 50 percent of whose shares, by votes or value, is owned by five or fewer U.S. taxpayers, and at least 60 percent of whose income is passive.

The U.S. Subpart F rules apply to foreign corporations if more than 50 percent of the shares, determined by votes or value, is owned by U.S. shareholders at any time in the CFC's tax year. Only U.S. persons who own 10 percent or more of the voting shares of the foreign corporation are taken into account for purposes of determining whether the foreign corporation is a CFC. Indirect and constructive ownership rules apply when determining whether a U.S. person has a 10-percent interest, and whether a foreign corporation is controlled by U.S. persons. The Subpart F rules apply only if the U.S. persons control the foreign corporation for an uninterrupted period of at least 30 days.

The U.S. Subpart F rules operate on a transactional basis similar to the Canadian FAPI rules. Tainted income of a CFC is attributed to its U.S. shareholders irrespective of the amount of foreign tax on the tainted income.

Only U.S. taxpayers who directly or indirectly own at least 10 percent of the voting shares of the CFC at any time in the year and who own shares directly or indirectly in the CFC at the end of the year are taxable on their share of the tainted income of the CFC. Constructive ownership rules apply to prevent taxpayers from fragmenting their shareholdings so they can avoid the 10-percent ownership requirement.

A CFC's tainted income that is attributed to its U.S. shareholders is defined to include the following amounts:

- insurance income other than income from the insurance of risks in the country in which the CFC is resident;
- passive income;
- income from sales and services derived from transactions with related parties outside the CFC's country of residence;
- income from shipping, air transportation, activities in space or on international seas, and income from the distribution and sale of oil and gas;
- certain income attributable to participation in international boycotts and bribes and kickbacks paid by the CFC to foreign governments;
- earnings invested in U.S. property (this rule is equivalent to an upstream loan rule); and
- retained earnings invested in excess passive assets, which are generally assets in excess of 25 percent of total assets.

If a CFC's passive income and foreign base company income exceed 70 percent of its total gross income, all of its income is attributed to its U.S. shareholders. The corresponding *de minimis* rule is not as generous. There is no attribution of a CFC's tainted income if the passive and foreign base company income are less than the lesser of 5 percent of the CFC's gross income or US \$1 million.

The only exemption provided by the U.S. Subpart F rules is an exemption for passive income, insurance income, and foreign base company income, other than oil and gas income, that is subject to an effective foreign-tax rate that is at least 90 percent of the U.S. corporate tax rate.

Relief provisions under the Subpart F rules are similar to those under the Canadian FAPI rules. Subsequent dividends received by a U.S. shareholder out of previously taxed CFC income are not taxable. Similarly, capital gains realized on the sale of CFC shares are not taxable to the extent that the gain is attributable to previously taxed CFC income. This relief is provided by way of adjustments to the cost base of the CFC shares. U.S. corporate shareholders of a CFC are entitled to a credit for any foreign taxes that the CFC pays on tainted income included in the U.S. corporation's income. This credit is subject to the same rules that apply to the indirect foreign tax credit discussed earlier. Individuals are entitled only to a deduction for the foreign taxes, unless they elect to be treated as a U.S. corporation. Losses incurred by a CFC with respect to one category of tainted income offset other categories of tainted income. In addition, losses from non-tainted sources are available to offset tainted losses. Losses are eligible for an indefinite carryforward. However, one CFC's losses are not available to offset the tainted income of another.

6.3.3.2 FIF rules

The United States adopted its passive foreign investment company (PFIC) rules in 1986. These rules are designed to supplement the CFC and foreign personal holding company rules, which apply only to foreign corporations controlled by U.S. taxpayers. In contrast, the PFIC rules apply to U.S. taxpayers who own shares in foreign corporations whose income and assets are primarily passive in nature, whether or not the corporations are controlled by U.S. residents.

The purpose of the U.S. PFIC rules is to eliminate the benefits of investing in passive foreign investment companies, namely, the deferral of U.S. tax and the conversion of ordinary income into capital gains. Because the U.S. CFC and foreign personal holding company rules apply only to foreign corporations controlled by U.S. residents, avoidance schemes involving passive foreign investment companies based in tax havens in which U.S. persons hold a minority of the interests were widespread before 1986. The U.S. PFIC rules are significantly more complex than the comparable FIF measures of other countries.

A foreign corporation is a PFIC if 75 percent or more of its gross income is passive, or if assets representing more than 50 percent of the total value of its assets are passive. For this purpose, passive income has broadly the same meaning that it has for purposes of the U.S. CFC rules. Passive income does not include income from an active business. The asset test involves a valuation of the assets of the foreign corporation at the end of each quarter. An asset is considered to be passive if it has generated or is likely to generate passive income. This general rule is supplemented by a number of specific rules with respect to particular types of property. For example, property used in a business is characterized as an active asset; securities are characterized as passive assets unless they constitute inventory; and shares constitute passive assets subject to a special look-through rule where a foreign corporation owns 25 percent or more, by value, of another foreign corporation's shares.

If a U.S. person owns shares in a PFIC at any time, the shares will retain that character as long as that person owns the shares, even if the foreign company ceases to be a PFIC. The only way this rule can be avoided is if the taxpayer makes an election to treat the PFIC as a qualifying electing fund (QEF), as explained below.

Although the U.S. PFIC rules do not provide general exemptions, the definition of a PFIC effectively exempts foreign corporations that are engaged primarily in active businesses. In addition, PFICs that are not QEFs and that distribute their income currently are exempt as a result of the excess distribution concept explained below.

The tax consequences to a U.S. person who owns an interest in a PFIC depend on whether the person makes the election to treat the PFIC as a QEF. If the election is made, the taxpayer must include in income the *pro rata* share of the PFIC's earnings and profits. If no election is made, there is no U.S. tax until distributions from the PFIC are received, or the taxpayer disposes of the PFIC interest; however, an interest charge is imposed at that time to eliminate the benefit of deferral.

If a U.S. taxpayer makes the election to treat the PFIC as a QEF, the method of taxation is similar to the method of taxation under the CFC rules, except that all of the income of the PFIC, not just its tainted income, is attributed to the U.S. shareholders. The QEF election is available only where the taxpayer has access to the information necessary to compute his *pro rata* share of the income of the PFIC and the U.S. tax authorities have access to the PFIC's books and records.

As noted earlier, a U.S. shareholder of a PFIC that is not a QEF is subject to tax only when distributions are received, or when the PFIC interest is disposed of. However, if the U.S. shareholder receives an "excess distribution" or realizes a gain on the disposition of the PFIC interest, the amount of the distribution or gain is deemed to have arisen ratably over the period during which the interest was owned. An excess distribution is one that exceeds 125 percent of the average distributions received over the previous three years. In effect, a PFIC that distributes its income currently will not be subject to the PFIC measures. The interest charge will be imposed only if a PFIC makes an excess distribution in a year, or if the taxpayer disposes of his interest at a gain.

Relief is provided in respect of subsequent distributions out of previously taxed income and subsequent capital gains attributable to previously taxed undistributed income. Foreign withholding taxes on distributions from a PFIC are creditable. Only U.S. corporations that own 10 percent or more of a PFIC's shares are entitled to claim an indirect foreign tax credit. Finally, U.S. tax payable in respect of an interest in a PFIC that is a QEF may be deferred, subject to an interest charge in recognition of the fact that the taxpayer is taxable before receiving the income.

6.4 Enforcement and administrative issues

The United States has stringent reporting requirements for U.S. taxpayers owning foreign property, owning interests in CFCs and FIFs, and engaging in transactions with related foreign corporations. These reporting requirements are buttressed by serious penalties for failure to comply. In addition, the Internal Revenue Service (IRS) devotes considerable resources to auditing U.S. taxpayers with respect to foreign transactions.

7. Conclusion

The foregoing review of the taxation of foreign-source income of residents in the five countries illustrates that, in terms of broad structural features, the Canadian system is in accordance with the international norm. Canada's combined exemption/credit system for dividends from foreign affiliates is restricted to active business income earned in treaty countries, and is similar to the systems in Australia and Germany. Because treaty countries are generally high-tax countries, the exemption system can be seen as a proxy for a credit system such as that used by the United States. Like the other countries, Canada has both CFC and FIF rules. Apart from the United States, none of the countries has adopted rules to deal effectively with the allocation of expenses to foreign-source income.

However, the devil is in the details. Canadian rules for the taxation of residents' foreign-source income have not been subject to a comprehensive review for 25 years. There are several significant flaws in the details of the Canadian system that undermine its structural integrity:

- the deductibility of interest in respect of borrowed funds used to earn dividends out of exempt surplus;
- the ability to earn low-taxed or exempt income in designated treaty countries;
- the irrelevance of the concept of taxable surplus;
- the application of the FAPI rules to controlled foreign affiliates in foreign countries with tax rates as high as Canadian rates;
- the generous rules for payments received by a foreign affiliate from other foreign affiliates or related corporations under paragraph 95(2)(a);
- the exclusion of base company sales and services income from the definition of FAPI;
- the arbitrariness of the FIF rules; and
- the ability to deduct foreign branch losses.

All of these issues are complex and difficult; they deserve serious study.

TABLE 1

	Canada	Australia	France	Germany	United States
Branch income	<ul style="list-style-type: none"> taxable with credit for foreign taxes 	<ul style="list-style-type: none"> exempt if derived in listed country taxable with credit for foreign taxes if derived in unlisted country 	<ul style="list-style-type: none"> exempt 	<ul style="list-style-type: none"> exempt if derived in a treaty country taxable with credit for foreign taxes if derived in a non-treaty country 	<ul style="list-style-type: none"> taxable with credit for foreign taxes
Branch losses	<ul style="list-style-type: none"> deductible 	<ul style="list-style-type: none"> not deductible even if derived in unlisted country; subject to carry-forward 	<ul style="list-style-type: none"> not deductible special reserve for first 5 years for certain industries subject to recapture over the following 5-10 years 	<ul style="list-style-type: none"> deductible if derived in a non-treaty country generally not deductible if derived in a treaty country, although taxpayer can elect deduction, in which case treaty exemption not applicable on future profits of branch to the extent of the losses previously claimed 	<ul style="list-style-type: none"> only deductible if there is foreign loss on a worldwide basis
Foreign tax credit					
<ul style="list-style-type: none"> Creditable taxes 	<ul style="list-style-type: none"> income or profits taxes 	<ul style="list-style-type: none"> income taxes "substantially equivalent" to Australian taxes 	<ul style="list-style-type: none"> not necessary because of exemption of foreign-source income 	<ul style="list-style-type: none"> foreign taxes equivalent to German taxes 	<ul style="list-style-type: none"> comparable to U.S. income taxes
<ul style="list-style-type: none"> Limitation 	<ul style="list-style-type: none"> per country with two baskets for business and other income 	<ul style="list-style-type: none"> worldwide with 5 baskets 		<ul style="list-style-type: none"> per country 	<ul style="list-style-type: none"> worldwide based on several baskets averaging within baskets allowed
<ul style="list-style-type: none"> Losses 	<ul style="list-style-type: none"> losses in one country do not affect credit for another country no special rule where foreign loss used against domestic income 	<ul style="list-style-type: none"> passive income does not offset business loss election to use domestic loss to reduce foreign income 		<ul style="list-style-type: none"> losses in one country do not affect credit for another country 	<ul style="list-style-type: none"> losses in one basket reduce income in other baskets, excess reduces U.S. income
<ul style="list-style-type: none"> Carry-over 	<ul style="list-style-type: none"> 7 years forward and 3 years back for foreign business taxes 	<ul style="list-style-type: none"> 5 years forward 		<ul style="list-style-type: none"> none, but can elect to deduct foreign taxes on a per country basis 	<ul style="list-style-type: none"> 5 years forward and 2 years back
Portfolio income	<ul style="list-style-type: none"> taxable with credit for foreign withholding taxes for individuals credit is limited to 15%, excess is deductible 	<ul style="list-style-type: none"> taxable with credit for foreign withholding taxes 	<ul style="list-style-type: none"> taxable with deduction for foreign taxes or credit under tax treaties 	<ul style="list-style-type: none"> exempt only if ancillary to business income earned through a permanent establishment in a treaty country otherwise, taxable with credit for foreign withholding taxes 	<ul style="list-style-type: none"> taxable with credit for foreign taxes
Dividends from foreign affiliate					
<ul style="list-style-type: none"> definition 	<ul style="list-style-type: none"> at least 10% of shares of any class only for Canadian corporate recipients 	<ul style="list-style-type: none"> at least 10% of votes, value only for Australian corporate recipients 	<ul style="list-style-type: none"> at least 10% of voting shares or shares worth at least FF150 million 	<ul style="list-style-type: none"> at least 10% of shares of foreign corporation only German corporate recipients 	<ul style="list-style-type: none"> at least 10% of voting shares

TABLE 1 (cont'd)

	Canada	Australia	France	Germany	United States
• exemption	<ul style="list-style-type: none"> • exempt if paid out of active business income earned in treaty countries 	<ul style="list-style-type: none"> • exempt if paid by foreign corporation resident in listed country 	<ul style="list-style-type: none"> • exempt • subject to a compensatory tax "précompte mobilier" under the imputation system, and foreign taxes are creditable against the précompte 	<ul style="list-style-type: none"> • if resident in a treaty country, exempt, subject to activity proviso in treaty • if engaged almost exclusively in active business in a developing country, effectively exempt 	<ul style="list-style-type: none"> • no exemption
• indirect foreign tax credit	<ul style="list-style-type: none"> • taxable if paid out of active business income earned in non-treaty countries or other income • no limit on number of tiers of foreign affiliates • exempt surplus distributed first 	<ul style="list-style-type: none"> • exempt if paid by foreign corporation resident in unlisted country out of exempt profits • if paid by foreign corporation resident in unlisted country out of taxable profits • <i>pro rata</i> out of exempt and taxable profits 	N/A	<ul style="list-style-type: none"> • taxable unless exempt as noted above • limited to 2 tiers; 10% ownership at each tier, directly and indirectly; both foreign corporations established in same jurisdiction or are functionally related 	<ul style="list-style-type: none"> • limited to 3 tiers; 10% at each tier and 5% indirectly
• limitation	<ul style="list-style-type: none"> • in effect worldwide limitation • of limited practical significance 	<ul style="list-style-type: none"> • worldwide limitation 	N/A	<ul style="list-style-type: none"> • per country 	<ul style="list-style-type: none"> • complex rules to pass limitation through tiers
Allocation of expenses					
• general	<ul style="list-style-type: none"> • no specific rules 	<ul style="list-style-type: none"> • few rules • any reasonable method • expenses that do not relate to any income are allocated on basis of net income 	N/A	<ul style="list-style-type: none"> • no detailed rules 	<ul style="list-style-type: none"> • detailed rules re: source of expenses
• exempt income	<ul style="list-style-type: none"> • deductible • serious problem 	<ul style="list-style-type: none"> • in principle not deductible • serious problem 	<ul style="list-style-type: none"> • in general, not deductible • expenses that do not relate to any income are allocated between taxable and tax-exempt income 	<ul style="list-style-type: none"> • not deductible to the extent of exempt income (if no exempt income, fully deductible) • serious problem 	<ul style="list-style-type: none"> • not necessary
• indirect foreign tax credit	<ul style="list-style-type: none"> • no specific rules 	<ul style="list-style-type: none"> • few specific rules 	<ul style="list-style-type: none"> • not necessary 	<ul style="list-style-type: none"> • few specific rules 	<ul style="list-style-type: none"> • detailed rules • apportionment for interest and R&D

TABLE 2
Summary of CFC Legislation

	Canada	Australia	France	Germany	United States
Policy objectives	<ol style="list-style-type: none"> 1) to prevent the diversion of passive and certain base company income to CFCs 2) to prevent the accumulation of such income in CFCs 3) not to interfere with legitimate foreign business activities of Canadian taxpayers 	<ol style="list-style-type: none"> 1) to prevent the diversion of passive and certain base-company income to CFCs in tax havens 2) to prevent the accumulation of such income in CFCs 3) not to interfere with legitimate foreign business activities of Australian taxpayers 4) to eliminate discrimination between foreign branches and subsidiaries 	<ol style="list-style-type: none"> 1) to prevent the diversion of passive and certain base-company income from France to foreign corporations in tax havens 2) to prevent accumulation of such income in foreign corporations in tax havens 3) not to interfere with legitimate foreign business activities of French corporations 4) to prevent abuse of the French territorial system of taxation and the participation exemption for dividends from foreign corporations 5) to allow French tax authorities to gather information concerning tax-haven activities of French corporations 	<ol style="list-style-type: none"> 1) to prevent the diversion of passive and certain base-company income to CFCs (in conjunction with previously adopted foreign personal holding company rules) 2) to prevent the accumulation of such income in CFCs in tax havens 3) not to interfere with legitimate foreign business activities of U.S. taxpayers 4) to prevent U.S. taxpayers from using CFCs to avoid foreign taxes 5) to prevent accumulation of passive income in CFCs beyond reasonable business needs 	<ol style="list-style-type: none"> 1) to prevent the diversion of passive and certain base-company income to CFCs (in conjunction with previously adopted foreign personal holding company rules) 2) to prevent the accumulation of such income in CFCs in tax havens 3) not to interfere with legitimate foreign business activities of U.S. taxpayers 4) to prevent U.S. taxpayers from using CFCs to avoid foreign taxes 5) to prevent accumulation of passive income in CFCs beyond reasonable business needs
Definition of a controlled foreign company (CFC)	<ol style="list-style-type: none"> 1) more than 50% of voting shares held by 5 or fewer Canadian residents or a related group 2) indirect and constructive ownership rules 3) 1% minimum ownership requirement 	<ol style="list-style-type: none"> 1) 50% or more of the share capital, voting rights, or rights to distributions owned by 5 or fewer Australian residents or <i>de facto</i> control by same 2) rebuttable presumption that Australian resident owning interest of 40% or more has <i>de facto</i> control 3) indirect and constructive ownership rules 4) 1% minimum ownership requirement 5) anti-avoidance rules for stapled stock and similar arrangements 	<ol style="list-style-type: none"> 1) 10% or more of shares or an investment of FFr 150 million or more, of a foreign corporation 2) also applies to foreign branches and partnerships 3) indirect and constructive ownership rules 4) no minimum ownership 	<ol style="list-style-type: none"> 1) more than 50% of voting or profit distribution rights held by German residents 2) indirect and constructive ownership rules 3) no minimum ownership 	<ol style="list-style-type: none"> 1) more than 50%, by vote or value, of stock owned by "U.S. shareholders" (citizens, residents and corporations who own at least 10% of voting power); lower limits for insurance CFCs 2) indirect and constructive ownership rules 3) 10% minimum ownership requirement 4) anti-avoidance rule for stapled stock

TABLE 2 (cont'd)
Summary of CFC Legislation

	Canada	Australia	France	Germany	United States
Definition of a tax haven	none	<ul style="list-style-type: none"> statutory white list of non-tax haven "comparable tax jurisdictions" any unlisted country is a tax haven (no grey countries) 	Foreign tax less than 2/3 of French tax <ul style="list-style-type: none"> unofficial list of tax havens comparison between actual foreign tax paid and notional French tax on same income 	Foreign tax burden on passive income less than 30% <ul style="list-style-type: none"> not just nominal rates; exemptions, preferential rates differences in tax base considered unofficial list of tax havens and other countries 	none
Attributed income	1) passive income and capital gains from passive property 2) income derived by a CFC from the provision of services if the amount paid or payable is deductible (directly or indirectly) by the payor from income derived from carrying on business in Canada and the payor is either a person with respect to which the CFC is a CFC (e.g. its Canadian parent) or is related to that person 3) income of "purchasing affiliates" from the sale of property, the cost of which is deductible, in whole or in part, by non-arm's length Canadians 4) income from the insurance or reinsurance of Canadian risks 5) income from debt and lease obligations (including licences of intangible property) of residents of Canada	1) for CFC resident in an unlisted country, all "tainted" income (defined as passive income and base company income) 2) for CFC resident in a listed country, generally only income from specified concessions under foreign tax law 3) certain income automatically attributed, including: certain categories of trust income; and, for a CFC resident in a listed country, trust amounts and income arising outside that country if they have not been subject to tax in any listed country	All income, as calculated under French tax law	Passive income and certain base company sales and services income from activities with affiliated persons	1) Subpart F income: <ol style="list-style-type: none"> income from insurance of U.S. risks foreign base company income <ul style="list-style-type: none"> passive income, broadly defined sales and service income from related-party transactions outside tax haven income from operation of ships and aircraft, activities on high seas, outer space, etc. foreign income from extraction or sale of oil and gas

TABLE 2 (cont'd)
Summary of CFC Legislation

	Canada	Australia	France	Germany	United States
Attributed income (cont'd)	6) income from an "investment business," defined as a business carried on by a CFC for the principal purpose of deriving income from property, from insurance or reinsurance of risks, from factoring of accounts receivable or from the disposition of investment property. Special exemptions apply for banks, trust companies, credit unions, and insurance companies				2) certain non-tainted income: <ul style="list-style-type: none"> • investment by CFC in U.S. property • accumulated profits invested in excess passive assets 3) <i>de maximis</i> rule: if more than 70% of CFC's gross income is foreign base company income or insurance income, all net income is tainted
Domestic taxpayers to whom income of CFC is attributed	1) any taxpayer with at least 10%, directly or indirectly, of any class of shares of CFC at end of year 2) constructive ownership rules	1) any Australian resident with at least 10% direct or indirect interest in CFC at end of year 2) any Australian resident with at least 1% interest in CFC at end of year who is a member of the group that actually controls (<i>de facto</i> or <i>de jure</i>) the CFC 3) constructive ownership rules	1) any corporation with at least 10% of shares or an investment of FFr 150 million, directly or indirectly, of CFC at end of year 2) constructive ownership rules	1) any German resident shareholder (including certain emigrants treated as residents for 10-year period following emigration) at end of year 2) no minimum ownership or constructive ownership rules	4) items of income described in (1)(a) and (1)(b), above are not attributed if subject to foreign tax of at least 90% of U.S. rate
Exemptions: 1. Distribution	N/A	N/A	N/A	Dividends paid by CFC in a year reduce that year's attributed income	1) any U.S. taxpayer with at least 10% voting power of CFC, directly or indirectly, at any time in the year and who owns shares directly or indirectly in the CFC at the end of the year 2) constructive ownership rules
					Repealed in 1975

TABLE 2 (cont'd)
Summary of CFC Legislation

	Canada	Australia	France	Germany	United States
2. Losses	<p>1) foreign accrual property income (FAPI) is net of FAPI losses and certain other losses (including capital losses from passive income) but not active business losses</p> <p>2) carry-over of FAPI losses for 5 years</p> <p>3) no consolidation of profits and losses of all foreign affiliates but limited relief by way of foreign accrual tax</p>	<p>1) CFC's losses carried forward indefinitely</p> <p>2) losses quarantined in 4 categories</p> <p>3) no consolidation</p>	<p>1) CFC's losses carried forward for 5 years</p> <p>2) no consolidation unless French corporation uses consolidation generally (in which case CFC regime not applicable)</p>	<p>1) CFC's losses carried forward for 5 years</p> <p>2) no consolidation, although losses of second- or lower-tier CFCs may offset tainted income of the first-tier CFC or other second- or lower-tier CFCs in the same multi-tier CFC group</p>	<p>1) CFC's current losses (and, to very limited extent, deficits in accumulated profits) reduce its earnings and profits; losses carried forward indefinitely; losses subsequently recaptured by treating later income as particular category of Subpart F income</p> <p>2) no consolidation, but very limited netting of earnings and profits of related CFCs in same activity</p>
3. Subsequent dividends	Deductible	Not taxable	Deductible	German tax on previously taxed attributed income refunded if dividend paid in following 4 years	Excluded from income
4. Subsequent capital gains (on sale of shares of CFC)	Relief by way of adjustments to cost base of shares	Proceeds of disposal reduced by previously attributed income	No relief	German tax on previously taxed attributed income refunded if shares sold in following 4 years	Relief by way of adjustments to cost base of shares
5. Income taxed under another country's CFC measures	No relief	Attributed income reduced by such income	No relief, but legislation suggests relief may be available under mutual agreement procedure in relevant tax treaty	Any tax so levied treated as paid by CFC, and therefore creditable against German tax	No relief

TABLE 3
SUMMARY OF FIF LEGISLATION¹

	Canada	Australia	Germany ²	United States
Definition of a FIF	Any foreign entity	Any foreign company or trust and certain foreign life insurance policies	A foreign corporation, subject to an effective rate of foreign tax of less than 30%, and more than 50% of whose income is passive	Any foreign corporation if 75% or more of income is passive or if value of passive assets represents 50% or more of total assets
Definition of an interest in a FIF	Any share or debt of any FIF that derives its value primarily from portfolio investments	Any equity interest in a FIF or in a foreign life insurance policy; also indirect interests held through a CFC	Any shareholding of 10% or more in a FIF	Any shares in a FIF even if it ceases to be a FIF subsequently
Exemptions	<p>1) Exempt if none of the main reasons for acquiring an interest in the entity was to avoid tax</p> <p>2) Exempt if entity is a CFC of the investor</p> <p>3) Prescribed entities (none so prescribed)</p> <p>4) Interests acquired from a nonresident by bequest or inheritance</p>	<p>Interests are exempt if:</p> <p>1) FIF engaged principally in eligible activities; eligible activities do not include banking (unless a widely held publicly traded company), financial intermediation services, life insurance (unless authorized life insurance company and more than 50% of assets used in that business), general insurance (unless a widely held publicly traded company), activities in connection with real estate (unless a widely held publicly traded company engaged in real estate development or commercial sales or leasing) and management of funds</p> <p>2) FIF is a trust for investing in listed countries that prohibit direct investment</p> <p>3) Holder is a temporary visitor</p> <p>4) FIF is a foreign employer-sponsored pension plan</p>	<p>Only passive income of the FIF is attributed. Income not considered passive if:</p> <p>1) generated in an active business as defined in the CFC rules. Active businesses include agriculture and forestry, manufacturing, mining, trading and certain banking and insurance activities (if FIF is a widely held public company)</p> <p>2) dividends received from a 25% subsidiary resident in the same country whose gross income is almost exclusively derived from an active business</p> <p>3) income derived from arm's length fees for services</p>	Exemptions for electing foreign investment companies that distribute virtually all of their income currently

TABLE 3 (cont'd)
Summary of FIF Legislation

	Canada	Australia	Germany	United States
Exemptions (cont'd)		<p>5) CFC or foreign trust provisions apply</p> <p>6) non-exempt FIF interests are 5% or less of all FIF interests</p> <p>7) interest is inventory valued at market</p>		
Domestic taxpayers covered	All taxpayers with direct or indirect interests	All taxpayers with direct interests in FIF	German shareholders holding 10% or more of the FIF	All taxpayers owning shares in FIF directly or indirectly
Method of taxation	Income imputed at prescribed rate	<p>1) Annual increase or decrease in market value plus distributions</p> <p>2) If taxpayer has necessary information, <i>pro rata</i> share of FIF's income on simplified Australian rules</p> <p>3) If no market value and no information, imputed income at specified rate</p>	<p>Undistributed passive income of the FIF is taxed to domestic taxpayers as a dividend; where passive income of the FIF is derived from financing foreign permanent establishments or related corporations engaged in an active business, only 60% of such income is attributed. Taxpayers cannot benefit from any treaty provision exempting dividends from tax in Germany</p>	<p>Tax on distributions and realized gains as ordinary income with interest to eliminate deferral benefit. For certain funds (QEFs) (generally those that provide necessary information), investor may elect to pay tax currently on share of FIF's undistributed income and capital gains</p>
Relief provisions:				
1. <i>De minimis</i> rule	No	If value of FIF interest at end of year does not exceed \$50,000	The lesser of 10% of gross income and DM 120,000	No
2. Foreign taxes	No relief except for foreign withholding taxes on distributions	Effectively deductible; indirect foreign tax credit for Australian companies with 10% or greater interest; credit for foreign withholding taxes on distribution	Deductible or creditable at shareholder's option; if credit, attributed income must be grossed up by foreign taxes	Indirect foreign tax credit for U.S. corporations with 10% or more of the shares of a FIF. Direct foreign tax credit for distributions or gains in respect of FIF that is QEF
3. Subsequent dividends	No relief; current distributions reduce imputed income	Not taxable to extent of previously taxed FIF income	German tax on previously attributed income refunded if dividend paid in following 4 years	Distributions out of previously taxed income of QEF exempt
4. Subsequent capital gain	No	Not taxable to extent of previously taxed FIF income	German tax on previously attributed income refunded if shares sold in following 4 years	Previously taxed income of QEF added to cost

TABLE 3 (cont'd)
Summary of FIF Legislation

	Canada	Australia	Germany	United States
5. Losses	No	FIF loss deductible against holder's income to extent of cumulative FIF income; any excess may be carried forward indefinitely; group relief in accordance with ordinary rules	May be carried forward 5 years	Loss of QEF is not attributed to U.S. shareholders; capital losses of QEF allowed against capital gains and indefinite carry-forward; other losses allowed against other income and indefinite carry-forward
6. Other				Election to defer payment of tax in respect of QEF

¹ France has no FIF legislation.

² The German rules summarized in this table relate to the PEIC regime introduced in 1992 to supplement the German CFC regime. Germany also has rules applicable to foreign mutual funds, whereby taxpayers having an interest in such funds are taxed both on distributions from the foreign fund as well as the fund's undistributed passive income. These rules are summarized in section 5.3.3.2 of this report.

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

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The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

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Technical Committee on Business Taxation Completed Research Studies

- ☒ **WORKING PAPER 96-1**
Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States
Brian Arnold (Goodman Phillips & Vineberg)
Jinyan Li and David Sandler (University of Western Ontario)
- ☐ **WORKING PAPER 96-2**
Why Tax Corporations
Richard Bird (University of Toronto)
- ☐ **WORKING PAPER 96-3**
Tax Policy and Job Creation: Specific Employment Incentive Programs
Ben Cherniavsky (Technical Committee Research Analyst)
- ☐ **WORKING PAPER 96-4**
The Effects of Taxation on U.S. Multinationals and Their Canadian Affiliates
Jason Cummins (New York University)
- ☐ **WORKING PAPER 96-5**
The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments
Michael Devereux (Keele University)
- ☐ **WORKING PAPER 96-6**
International Implications of U.S. Business Tax Reform
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Study on Transfer Pricing
Robert Turner (Ernst & Young, Toronto)
- ☐ **WORKING PAPER 96-11**
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Marianne Vigneault (Bishop's University)
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Taxation of Inbound Investment
Gordon Williamson (Arthur Andersen, Toronto)

Why Tax Corporations?

Richard M. Bird
International Centre for Tax Studies
University of Toronto

December 1996

WORKING PAPER 96-2

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

Why Tax Corporations?

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International Centre for Tax Studies
University of Toronto

December 1996

WORKING PAPER 96-2

Prepared for the
Technical Committee on Business Taxation

Comments on the working papers are invited and may be sent to:

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Abstract

Popular opinion seems to be that, if anything, corporations do not pay enough in taxes. In contrast, although economists recognize that it is often convenient to utilize corporations as agents to collect taxes from customers (sales taxes), employees (payroll and personal income taxes) and owners (dividend and withholding taxes), they often see no good reason why corporations *as such* should pay any taxes, particularly since corporation income (and capital) taxes may impose significant economic costs on society. This paper discusses this apparent divergence of views, noting a number of reasons why corporations as such might properly be taxed. Properly designed, such taxes might in some limited instances be desirable means of collecting public revenue in ways that would improve economic well-being. More importantly, although the openness of the Canadian economy clearly imposes limits on the extent to which Canadian corporation taxes can exceed those imposed elsewhere, particularly in the United States, that same openness makes it not only desirable but necessary to impose some form of corporation tax. Even from a purely domestic perspective, so long as the main form of personal taxation is a personal income tax, some form of corporation income tax will be a necessary part of the tax system.

Although none of the possible rationales for taxing corporations is particularly strong, in total it is clear that we not only should but must impose some explicit taxes on corporations. It is much less clear that either the present level or the present mix of corporate taxes in Canada can be justified. On the one hand, given the existence of corporation income taxes in Canada's trading and investing partners, the very globalization of capital markets that has often been said to weaken the case for taxing capital actually makes the case for a corporate income tax in Canada stronger than it would otherwise be – although this does not imply that the present level of that tax is optimal. On the other hand, it is hard to find any rationale at all for taxes on corporate capital, although a case might be made for a more neutral form of factor taxation in the form of a low "income-type" value added tax, particularly at the provincial level.

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1. Economic vs. Popular Opinion

Economists are sometimes accused of agreeing on almost nothing and of never reaching a clear conclusion. Most readers have probably heard the joke about the policy maker who advertised for a "one-handed economist" on the grounds that his or her answer to any question would be less likely to be followed by "On the other hand...." One important policy question on which most economists appear to agree, however, is that there is very little to be said in favour of taxing corporations.¹ Many would agree, for example, that the title of a recent paper – "The Corporate Income Tax and How to Get Rid of It" (Vickrey, 1991) – adequately conveys the main message of the extensive economic literature on this subject. The reason for such unanimity is primarily the substantial economic costs associated with taxes on corporations, although the uncertainty as to who really pays such taxes no doubt also contributes to the disdain in which they are generally held by economists.

Numerous *distortions and costs* are created as a result of corporate taxes (Gravelle, 1994). Choices with respect to such matters as organizational form (the incorporation decision), financial structure (debt-equity ratio) and dividend policy (pay-out ratio) may be distorted by such taxes. Similarly, at the margin investment decisions with respect to industry, asset mix, location, risk-taking and timing may be influenced by variations in effective tax rates (Mintz, 1995; Chen and McKenzie, 1995). Inter-temporal decisions, like inter-sectoral decisions, are also affected by taxes on capital income, with the result that private savings are diminished. Moreover, the complexity of corporate taxes may impose significant costs and barriers to expansion of new and small firms, while uncertainty as to the precise tax implications of various corporate decisions may act as a general deterrent to investment. All in all, the analysis in the public finance literature of the potential "dark side" of corporate taxation is extensive – and sufficiently persuasive to convince most economists that there is very little, if anything, to be said for corporation taxes. On the contrary, there may be substantial economic gains from reducing and even eliminating such taxes.

In sharp contrast, recent events in many countries have once again demonstrated that the general public is almost equally unanimous in holding the opposite conclusion, namely, that corporate taxes are among the best of all taxes. It is, of course, easy for economists to demonstrate that these popular views must largely be wrong, since they are based on fundamentally unconvincing beliefs about the incidence of corporate taxes – and in fact, as already suggested, the inherent uncertainty about corporate tax incidence actually provides another reason for suggesting that there is no place for such taxes in a tax system concerned to achieve efficiency and equity.

¹ Many of the following arguments apply equally well to all taxes on capital income or business. Since corporations are of course the major form in which business activity is carried on in most countries, as well as the major source of capital income, the categories of corporate income, capital income and business income clearly overlap, although they are equally clearly not identical. This paper for the most part, focusses on taxing corporations and does not develop these distinctions in detail.

The popular rationale for corporate taxes may be loosely viewed as a version of the *ability-to-pay rationale*. A particularly naive version of this argument is that since corporations are separate legal "persons" and some of them have a lot of money, they must have substantial "ability to pay" their taxes and should therefore do so. Popular as such arguments are – witness the numerous media articles deploring the decline in the share of corporate taxes – they are clearly fallacious. Only people, not things, can "pay" taxes in the sense of having their private real incomes decreased, and a major problem with corporate taxes from the equity perspective is that no one can be very certain who is actually paying them.

While perhaps politically convenient, such ambiguity in incidence makes it equally difficult to assess another often-asserted "ability" rationale for corporate taxation, namely, that the incidence of such taxes is progressive. Are increases in corporate taxes paid by the rich? To the extent that corporate taxes reduce the income of shareholders, and shareholders are on average richer than others, such taxes may indeed be progressive in their incidence. But any such progressivity is "blind" in the sense that it takes no account of the total position of the shareholder and imposes the same tax on the impoverished elderly pensioner as on the multimillionaire rentier. Moreover, corporate taxes may equally (or, more accurately, may to varying extents) impinge on all recipients of capital income, on wage-earners in general or corporate employees in particular, or on the consumers of corporate products. Despite the frequency with which economic models assume that all corporate taxes impinge on the normal return on capital, it is important to remember that this is an assumption, not a fact. One might equally well assume – as a recent study of the Japanese tax system notes is generally assumed in that country (Ishi, 1995) – that the corporate tax is shifted forward in prices, in whole or in part.

The difficult question of incidence also lies at the heart of a third "ability" argument that has sometimes been made – e.g. by the Royal Commission on Taxation (1967) in Canada – to the effect that, whatever the incidence of the corporate tax might be, *reducing* the tax would probably have adverse distributional effects, essentially by bestowing windfall gains on existing shareholders to the extent the existing taxes have been capitalized in share prices. While no one can know the magnitude of such a shift, its existence does not seem implausible. Even so, it is perhaps best considered as another possible "cost of change" to be borne in mind in assessing the desirability of tax change rather than a valid distributional argument for maintaining existing corporate taxes.² I shall return to this point in the final section of the paper.

Popular support for taxing corporations, thus, has weak logical and empirical underpinnings. In contrast, the economic opposition to such taxes has strong logical (if not so impressive empirical) support. Nonetheless, my argument in this paper is that, when all of the qualifications needed in the real world of policy are taken into account, the two positions are not nearly so far apart as may at first appear. There may be no one good argument for taxing corporations, but there are at least a dozen arguments supporting some form of corporate taxation in certain circumstances. When one adds these arguments up in the context of any particular country, it generally turns out to be the case, at least in my view, that not only should there be taxes on business and capital

² Perhaps it should be noted that any conceivable "progressivity" arguments with respect to wealth taxes supporting corporate capital taxes are even more tenuous and irrational (Bird, 1991) than those mentioned above.

income and especially on corporations, but that the taxes we now have may not be all that far from the best we can do in the circumstances. This is not to say that we cannot do better – clearly, many and sometimes significant changes may be desirable in corporate tax policies in Canada, as in most countries – but the basic structure of corporate taxation that now exists is by no means all bad.

Broadly, three answers may be suggested to the question posed in the title of this paper: why tax corporations? Canada – like every other country – may impose taxes on corporations (1) because it is desirable to do so, (2) because it is necessary to do so to achieve certain objectives, (3) because it is convenient to do so, or for some combination of these reasons. While the distinctions between these three possible rationales for corporation taxes – desirability, necessity, and convenience – are not always sharp, they are explored under these headings in the next three sections of this paper. The fifth section then briefly discusses how corporations should be taxed in light of these various rationales, and the final section considers a few additional factors that seem relevant in deciding upon changes in the level and structure of corporate taxation.

2. Because It May Be Desirable

Taxation is often discussed as though all taxes are inherently bad in the sense that society would be better off in their absence. Quite apart from any offsetting benefits from public expenditure, this is not correct. There are in fact three types of tax that may make any particular country better off than it would otherwise be.

- The first is a so-called *Pigovian tax*, one that improves market efficiency by inducing economic agents to take social costs correctly into account – and at the same time provides revenue for the state.
- The second is a *tax on economic rent*, or pure profits. Unlike a Pigovian tax, which alters allocative decisions in a socially beneficial way, a rent tax has no effect at the margin, and hence imposes no economic costs, while providing revenue that can be used either to finance public goods or achieve distributional goals.
- The third and least commonly mentioned member of this magic fiscal trio is a tax that is paid by a foreigner. From the point of view of any particular country, a tax that can be costlessly exported (i.e., without offsetting effects on investment flows or trade patterns) is clearly a very good tax indeed, in the sense of providing additional revenue for public purposes without reducing the domestic resources available for private use.

It seems obvious that the first concern in designing tax policy in any country should be to impose as many "good" taxes as possible before turning to the dreary and unpleasant task of raising the additional revenue needed to finance public-sector activities in as undistorting a fashion as possible.

Two taxes on rent that have received considerable attention over the years, for example, are taxes on land value – Henry George's famous single tax (Tideman, 1994) – and various forms of taxes on corporate cash flow (Mintz and Seade, 1991; Shome and Schutte, 1993). Similarly, much ink

has been spilled in recent years on the possible uses (and limits) of environmental or "green" taxes – a form of Pigovian tax (Deweese, 1992; Goulder, 1994). While the academic literature has understandably been less forthcoming with respect to the potential (national) virtues of tax exportation, some aspects of this subject too have been explored by analysts (e.g. Findlay, 1986; Bruce, 1992). The balance of the present section discusses the extent to which corporate taxes may be good, desirable taxes from these different perspectives.

Taxes as Prices

Corporate activity may give rise to negative externalities, in effect imposing non-priced costs on society as a whole (e.g. through environmental degradation). A possible fiscal solution to this problem is to impose appropriately corrective levies on the activities giving rise to the problem. Designing and implementing such pollution taxes, green levies, liability-based charges, or whatever they may be called may obviously be a difficult task in practice and cannot be discussed here in detail, but in principle the rationale for imposing such charges seems clear (Deweese, 1992). But what seems equally clear, and is more directly relevant in the present context, are two additional points. First, although corporations, like other economic agents, may appropriately be subject to corrective environmental taxes, there is no reason why corporations' income should be so taxed. Second, this line of argument provides no possible case for any form of general corporate taxation. In short, green taxes may sometimes be very good taxes indeed, but no possible rationale for taxing corporations *as such* is to be found in such arguments.

Much the same can be said with respect to what may in some ways be considered a variant of the same argument, namely, that to the extent particular public activities result in identifiable cost-reducing benefits being received by particular firms, they can and should be charged for them. There is of course an excellent case for applying user charges to corporations or any other direct beneficiary where feasible (Bird and Tsiopoulos, 1996). Moreover, although the subject has been little studied, it seems likely that a significant fraction of public expenditures, particularly perhaps at the local government level, directly benefits businesses.³ In view of the difficulty of designing and implementing direct user charges in many instances, a limited case may perhaps be made for some more generalized form of taxation on business to cover unattributable benefits.⁴ Not only is there no apparent reason for levying such a tax on corporations alone, however, but any such tax should likely be local rather than national in scope and relatively low in rate. Moreover, as discussed further in Section 5, those who support business taxes for this reason generally argue for taxes on all factor costs or value added as the most appropriate base, rather than separate taxes on profits, payroll or capital, which invariably introduce biases into private allocative decisions (Oakland and Testa, 1995).

³ Kitchen and Slack (1993) estimate, for example, that on average close to 40% of (non-education) municipal expenditures in eight Ontario cities accrue to non-residential properties, though the share is less than 20% if education is taken into account. Oakland and Testa (1995) estimate the "business share" of state and local expenditures in the United States to be 13%. In both cases, it should be noted, business as such pays a considerably higher share of the taxes levied by the respective governments.

⁴ For example, such arguments are sometimes used to rationalize (at least some of) the local property tax (Bird and Slack, 1993) as well as taxes on motor fuels (Bird, 1976).

Such specific "benefit" arguments for imposing tax-prices should not be confused with two distinct versions of a more general benefit rationale for taxing corporations that may be found in the literature (Bird, 1979; Messere, 1993). First, corporations may benefit generally from government actions (e.g. in providing the basic legal and institutional framework and physical infrastructure within which market activity takes place), in educating the labour force, and in maintaining a high and stable level of economic activity. Such corporate-government partnerships might be considered to justify some sharing of the profits (and, presumably, losses). Even if there is thought to be something in this rather vague line of argument, however, there is no apparent reason why it should apply only to corporations rather than to businesses in general, or indeed to income in general.

Secondly, corporations differ from other businesses in possessing certain legal characteristics bestowed by government, which may be considered to bestow a special benefit. For example, limited liability, perpetual life, easy transfer of ownership and such related features as easier access to capital markets are clearly worth something. Since the state has a monopoly on granting these privileges, it can charge for them whatever the market will bear. In efficiency terms, however, such charges are warranted only to the extent incorporation gives rise to social costs, and since the only real such costs would appear to be record-keeping, at most a small registration fee or similar levy would seem to be justified by this argument. With some stretching, some of the capital taxes found in Canada may perhaps be justified along these lines, but it pushes this argument much too far to assert that the privilege of limited liability warrants general corporate taxes of the scope or scale of those found in Canada or most countries. In short, like the Pigovian argument discussed above, neither of these versions of the benefit argument appears to justify significant general taxes on corporations.

Rent Taxation

Economic rents or pure profits may be created, either transitorily or for a longer period of time, for a variety of reasons. Although there is again no reason to limit the argument to corporations in principle, in practice it seems likely that many such rents – for example, those arising from the exploitation of natural resources or monopoly positions – will in fact accrue to corporations. Indeed, a traditional argument for imposing a special tax on corporations, even a graduated tax, was precisely to tap monopoly rents or so-called "excess" profits (Groves, 1937). Although this view, which appears to have been motivated largely by distributive concerns, receives little support today, the modern professional literature makes it clear that there is a strong efficiency case for taxing economic rents at the corporate level (Mintz, 1995).⁵ By definition, taxes on rents secure revenue for public purposes without disturbing private economic decisions, which is, as noted above, about as good as a tax can do. It is thus not surprising that taxing rents is one of the major rationales commonly asserted for taxing corporate profits and that, in particular, several recent proposals for reformed corporate taxation are aimed at taxing only the "rent" element of corporate profits.

⁵ Vigneault and Boadway (1996) note, a particularly interesting case in which corporate taxes are in effect non-distorting "rent" taxes is when investment costs are "sunk" so that investment is hard to reverse. This point is related to an argument mentioned later with respect to foreign direct investment.

International Aspects

An important aspect of the argument for taxing rents relates to the taxation of foreign investment. Foreign firms would seem to be at an inherent disadvantage relative to domestic firms. One reason why they may nonetheless be able to compete successfully is because they have some special advantage, in terms of know-how, skill, access to finance or markets and so on, that they can exploit to offset their "foreignness." In other words, they have some firm-specific assets that generate rents for them. In this view, the mere existence of direct foreign investment may be taken to imply that the profits accruing to such operations must contain a rent element (Bird, 1986; Sorensen, 1995). Although care must be exerted in order not to kill the goose, so to speak, judicious taxation of such rents may therefore make good sense. Indeed, as noted in the next section, if the host country does not tax the profits earned by foreign investors, the home country likely will, and hence the case for levying taxes on the earnings of foreign investors – at least up to the level of the taxes imposed by their home country – is very strong.

Two other aspects of international investment are also relevant in this context. Firstly, some authors (e.g. Musgrave, 1987) have asserted that the host country is entitled to a share of the profits generated by foreign investment as a matter of right. The argument is analogous to the case often cited that the locality in which a particular natural resource is located has first claim on taxing the resource. Of course, others have asserted that such claims have no validity beyond the sorts of benefit and liability arguments mentioned earlier (Boadway and Hobson, 1993). Still others have attributed the strength of this "source" argument to the simple fact that the country (or region) in which the rent-generating resource is located has, it were, the first kick at the fiscal can (Brean, Bird and Krauss, 1991). On the whole, although this so-called "national rental" argument for host-country taxation (Musgrave and Musgrave, 1972) has a long tradition, whether one accepts it or not appears to be a matter of taste rather than logic.

Secondly, and quite distinct from the international variants of the rental argument, governments view favourably taxes that do not impinge on their own voters. One way to achieve this happy state, as just noted, may be to tax non-resident owners. Another may be to tax foreign consumers of domestically produced goods, to the extent a country's exports are sufficiently important to influence world prices (MacDougall, 1960).

International tax exportation is a difficult subject to study, and no one has a very clear idea if, or to what extent, taxes imposed on corporations in one country may be exported through higher market prices to consumers abroad or through lower distributions to foreign owners. But to the extent that the world, and Canada, differ from the conventional frictionless "small open economy" model – as it undoubtedly does – this possibility cannot be dismissed out-of-hand. On the other hand, so little is known about this question that it would be foolish to predicate tax policy on it. From a national political point of view, it may indeed be desirable to tax foreigners whenever one can get away with it, but this dictum is of little use as a guide to policy.⁶

⁶The main possible exception relates to large natural resource deposits, and it is no coincidence that much of the "rent" tax literature has focussed on this case (Garnaut and Clunies-Ross, 1983).

3. Because It May Be Necessary

The previous section suggested that taxes on corporations in some instances might be a desirable means of collecting public revenues in ways that would either improve economic well-being (Pigovian taxes), not harm economic well-being (rent taxes), or impose costs on those beyond the political pale (tax exporting).⁷ Whether or not corporate taxes are considered desirable for these reasons, they may prove to be necessary for closely related reasons. Specifically, the existing international tax regime makes it virtually essential for countries to impose taxes on corporate profits, as discussed next. Moreover, there may in practice be no other way to tax rents effectively other than through some form of corporate tax. Finally, as noted later in this section, some taxation at the corporate level seems likely to constitute an essential component of any adequate system of personal taxation.⁸

International Investment Revisited

One reason most countries tax corporate profits is because most countries tax corporate profits. To put it another way, in a world in which cross-border investment flows are important, an increasingly influential element in the design of domestic tax systems is their interaction with tax systems in other countries. Canada is no exception. As Brean (1984) and others have shown, Canada's corporate tax system interacts in a number of ways and levels with the systems of corporate taxation found in other countries, particularly larger developed countries and especially with that of the United States, which is by far the dominant country with respect to cross-border investment flows.

Oversimplifying considerably, it may perhaps be said that as long as the United States taxes corporate profits, Canada should also do so. This does not mean, of course, that the Canadian system should be a clone of that of its neighbour to the south. Nor is it a clone, as evidenced by the very different approaches taken to corporation-shareholder taxation in the two countries. But the importance of cross-border investment and the dominance of the United States do imply that there are limits to the degree to which Canada's corporate tax system can diverge from that of the United States.

Specifically, under present U.S. rules, it is unlikely that any foreign corporate profits taxes disallowing the deduction of interest would be considered creditable against U.S. tax (McLure and Zodrow, 1996). This alone may rule out some of the more drastic forms of corporate tax revision sometimes advocated, as discussed in Section 5. In addition, U.S. rules may also restrain the growth of taxes on corporate capital unless perhaps they take the form of alternative

⁷ It should be mentioned, as Vigneault and Boadway (1996) emphasize, that similar pressures to tax the "outsider" exist *within* a country, with the result that sub-national corporate taxes are likely to reduce national well-being. As Dahlby (1996) notes, such "fiscal externalities" are especially likely to be important when they are, as in Canada, reinforced by the working of the system of equalization transfers.

⁸ While the division between the arguments in this section and those in Section 4 (on the "convenience" of taxing corporations) is obviously rather arbitrary, the basic idea is that the present section discusses reasons why corporate taxes are needed to achieve policy objectives that could not otherwise be achieved, while the next section concentrates on reasons why it may be administratively more convenient to tax corporations than to achieve the same goal in some other conceivable, but more costly, way.

"minimum" taxes to conventional corporate profits taxes (Sadka and Tanzi, 1992). And finally, as some Canadian provinces have already discovered (with respect to special taxes on resource companies), other less conventional forms of taxing corporations may also become considerably less attractive if they fail to conform to American expectations of what a "good" corporation tax should look like – namely, as much like the U.S. corporate income tax as possible.

More generally, even apart from the important U.S. constraint on Canada's tax policy freedom in this area, the world-wide prevalence of a particular variety of corporate taxes makes it difficult for any relatively small country to deviate very far from this norm without incurring some penalties in the form of loss of investment, or tax revenue, or both. The conventional corporation income tax undoubtedly has many defects, but so long as everyone else has one, Canada likely has to have one also, at least in form.

Indeed, in total the international arguments for taxing corporations, and specifically corporate profits, are impressive. At least seven such arguments may be found in the literature, most of which have already been mentioned.

- First, some taxation of foreign capital income may be desirable to exploit any international market power (MacDougall, 1960). That is, since the international supply of capital is not perfectly elastic there is some room for nationally non-distortionary taxation.
- Second, when economic profits (rents) are not fully taxed under the domestic tax system in both capital-exporting and capital-importing countries, both countries should impose taxes on foreign capital (Bruce, 1992).
- Third, if other production inefficiencies exist, such taxes may be warranted on efficiency grounds even if economic profits are fully taxed (Hartman, 1986). As Findlay (1986) notes, the non-optimality of taxes on non-capital income in most countries provides one reason why taxes on foreign income may be required.
- Fourth, from a more narrowly national perspective, in all instances in which multinational firms reap "location-specific rents," source countries can impose taxes on such profits without affecting investment (Bird, 1986).
- Fifth, taxes on international capital flows may be used to exploit revenue transfers from capital-exporting countries that have foreign tax credit systems (Bond and Samuelson, 1989).
- Sixth, given political constraints on high direct taxes, a source-based corporation tax may be the best way available to tax immobile factors (Sorensen, 1995).
- Seventh, combining several of the earlier efficiency and institutional arguments with a particular equity perspective, such taxes may be an appropriate way for countries to share the rents earned by international investment (Musgrave, 1987).

Backstopping the Personal Tax

No tax is perfect. Certainly the present Canadian personal income tax is not. One important role for the corporate income tax is to close some of the gaps in the personal tax system, for example, by imposing some taxation on capital gains as they accrue at the corporate level.⁹ In the absence of taxation at the corporate level, shareholders would have strong incentives to postpone taxes by leaving retained earnings at the corporate level rather than taking them out as (taxable) dividends.¹⁰ Similarly, corporate income taxes may, to some extent, be considered an appropriate offset to the lack of Canadian personal taxation on capital income received by foreigners. A quite distinct "backstopping" role for the corporate tax may be to aid the enforcement of the personal tax, for example, by withholding tax on dividends paid to individuals that might not otherwise come to the attention of the fiscal authorities. All this is in addition to the indispensable role played by corporations in modern fiscal systems as third-party collectors of taxes and suppliers of information, as developed further in Section 4.

Given the complexity of the relations among individuals and corporations (as suppliers of labour and capital, recipients of profits and purchasers of products), the role of taxation at the corporate level is likely to remain central in any fiscal system, in terms of enforcement and administration. If, for example, the present personal income tax were to be replaced by a tax on wages alone or a tax on personal expenditure, or, for that matter, by a comprehensive income tax including gains on an accrual basis, the gap-filling role of corporate taxes might be diminished, but the enforcement role might even be strengthened.¹¹ For both domestic and international reasons, some taxes must thus continue to be imposed on corporations as long as direct personal taxes constitute part of the tax system.

4. Because It May Be Convenient

Section 2 suggested a few reasons why it may be desirable to tax corporations. Section 3 added reasons to explain why it may be necessary to tax corporations to achieve certain policy objectives. This section argues that even if it were not desirable or necessary to tax corporations, it is so convenient to do so that a system that does not seem virtually inconceivable. Several decades ago the Royal Commission on Taxation (1967) seized on what it called the conduit theory of corporations – that corporations were essentially only a conduit channelling profits to their ultimate owners – to argue that there was no reason for imposing taxes on corporations. Sections 2 and 3 essentially argued that this view was seriously deficient in neglecting the desirability of taxing economic rents, particularly those accruing to foreigners, and the potential

⁹This argument should be distinguished from the generally invalid "ability" arguments for corporate taxes discussed earlier.

¹⁰This paper does not discuss the question of whether, how, and to what extent the corporate and personal income taxes should be integrated: see Sorensen (1995), Head (1996), and Cnossen (1996) for three recent reviews of this question.

¹¹For example, most proposals for expenditure rather than income taxation, especially if they retain any degree of graduation in rate structure, would substantially increase evasion pressure on the always difficult business-personal expense frontier, and would probably require the widespread institution of corporate-level taxes on fringe benefits and so on to protect the revenue.

usefulness of corporate taxes as a complement to inherently imperfect personal taxes. In contrast, this section basically reformulates the conduit view to say that because so much of modern economic activity flows through the conduit of the corporation it is therefore so convenient to impose taxes at this level that not doing so is virtually inconceivable.

As Tax Collector

At one level, the rationale for many taxes imposed at the corporate level is simple. To paraphrase bank-robber Willie Sutton, who when asked why he robbed banks, responded "because that's where the money is," – corporations are taxed largely for the same reason. Most of the money earned and spent by Canadians passes at some point through the hands of a much smaller number of corporations, which generally keep better records and are easier to locate and track than individuals. Thus there is obviously a strong administrative rationale for collecting taxes from corporations rather than individuals. The key to effective taxation is information, and the key to information in the modern economy is the corporation (including particularly, but not exclusively, financial corporations such as banks). The corporation is thus the modern fiscal state's equivalent of the customs barrier at the border. Or, if one prefers, it is the informational goose that produces the fiscal golden egg. The dilemma, as always with tax policy, is how large an egg can be extracted without resulting in the decline and perhaps eventual demise of the goose.¹²

This general administrative rationale applies to using corporations as withholding agents for personal income taxes (e.g. on wages, interest and dividends) and as collection agents for sales and excise taxes or even, potentially, as in Australia and other countries, as pre-payers of income, sales and other taxes legally due from unincorporated suppliers of goods or services to corporations or purchasers of corporate products (Soos, 1990). Corporations act as withholding agents for some payroll taxes and, legally, as direct payers of others. To the extent employer payroll taxes may be considered to be paid in the end by workers (Dalhby, 1993), these taxes might perhaps be considered as simply a less direct means of withholding. On the other hand, to the extent payroll taxes, whether formally levied on employees or employers, have an impact on the costs of doing business they – like taxes on corporate capital¹³ – presumably affect the choice of factor inputs in an unneutral fashion, as discussed further in Section 5 below.

Taxes are paid in money, and most money at some stage passes through some corporation. Taxes may be enforced effectively to the extent the authorities have adequate information about the existence and value of taxable transactions, but most of the essential information is in the hands of corporations. Thus, in a real sense, the modern tax system rests on the extent to which the conduit

¹² It is no coincidence that the part of economic activity that does not appear on the books of organized business entities is called the "hidden economy," and is the subject of much concern in fiscal circles. There has been considerable discussion in recent years over the size of this unrecorded part of the Canadian economy, with estimates ranging from 3% to over 20% of GDP, but there seems little question that one important factor related to the growth of unrecorded transactions has been the growth of taxation on recorded transactions (Hill and Kebir, 1996).

¹³ As argued in Bird (1991a), the view that corporate capital taxes might in some way be viewed as a "pre-payment" or "in-lieu" levy substituting for a personal wealth tax seems too far-fetched to deserve much attention.

of the corporation has replaced the customs house as the channel through which the tax base flows and where it can best be trapped and tapped. From this perspective, recent trends to out-sourcing increasing shares of corporate activity – some have envisaged a world in which no firm has employees, just an endless series of shifting subcontractors – raise serious questions for tax administrators.¹⁴ If such trends become dominant, much more recourse may have to be made to presumptive levies such as the Australian "pre-payment system" for contractors mentioned above, although this theme is not further pursued here.

As Tax Base

Of course, the simple convenience of levying taxes as income and expenditure flows impinge on or pass through corporations does not justify imposing taxes on corporations *as such*, except perhaps in the crudest of proxy arguments. In political economy terms, the main reason for the prevalence of taxes on corporations in most countries may simply be because they are there – what may perhaps be called the existence or "Mt. Everest" argument¹⁵ – combined with the obvious political feasibility – perhaps even the political necessity (Sorensen, 1995) – of such taxes. Most of the arguments mustered above as to why taxes on corporations per se might be desirable or necessary would appear to provide at most weak support for taxes of the level or type now found in most countries, were it not for the important fact that, as emphasized in Section 5, such taxes already do exist in most countries. But the political argument itself, though often ignored or downplayed by economists, is worth developing at least briefly.

Taxation is as much a political as an economic phenomenon. Governments that go against popular perceptions of who should pay how much in what way do so only at their peril. If popular feeling, despite decades of economic argument to the contrary, is that large corporations should pay large taxes, then it is usually incumbent on any government that wishes to stay in office to bow to these perceptions at least to some extent.¹⁶ Expedients such as minimum corporate taxes and corporate capital taxes seem hard to justify on any other grounds. This rather disparaging comment does not mean, however, that the political argument alone may not be sufficient to justify such taxes. Quite apart from the obvious desire of any government to remain in office, if the political cost of raising taxes from corporations is low, even if the economic cost is high, it may still be perfectly rational to do so: both costs are real, and optimal tax policy will equate total costs at the margin with total benefits.¹⁷

¹⁴ For some preliminary discussion of the possible future of taxation in the face of such trends as globalization and computerization, see Bird and Mintz (1994).

¹⁵ When Sir Edmund Hillary was asked why he wanted to climb Mt. Everest, he is reported to have replied: "Because it is there."

¹⁶ As the Ontario Fair Tax Commission (1993, p.399) reported: "For many of those who appeared at our hearings, declining revenue shares from corporate income and capital taxation stood as a symbol of increasing unfairness in our overall system of taxation." This symbolic aspect of taxation is developed further in Bird (1991a).

¹⁷ For arguments along these lines, see Gillespie (1991) and Hettich and Winer (1988).

Some taxes on corporations that seem economically irrational may make perfect sense in the larger political-economy picture. Of course, such arguments need to be used with caution lest all things that exist are seen as justified simply because they exist. When such taxes induce significant economic distortions, such costs – which are usually hidden from public and political eyes – must be explicitly weighed against the possible "acceptability" gains from raising revenue in this way.¹⁸

Policy Flexibility

A final reason for taxing corporations is that it may be useful from a number of different policy perspectives to have a tax instrument through which to influence their economic behaviour.¹⁹ As noted earlier, most economic activity in modern countries takes place in corporate form, and as long as governments wish to play an active role in shaping economic activity – which will likely be as long as governments exist – they would be foolish to reject out of hand the opportunity of doing so through corporate tax policy. Policies to encourage or discourage investment in general, in particular types of assets or in particular locations; policies to foster exports, to encourage investment abroad and foreign investment in Canada; or policies to promote small, new, or technology-intensive business – or whatever is the economic or political flavour of the month have always been popular with governments and will likely continue to be. There is no obvious reason why taxes and tax reliefs should be excluded from the set of policy implements that governments use to achieve their various distributive and allocative goals (Bird and Mintz, 1994).

Of course, such policies may entail costs and may fail to achieve their goals, but tax policies are no different from others in these respects, and it seems unreasonable, and indeed nonsensical, to expect any government to take a vow of non-interference with tax policy for nonfiscal reasons. In short, a potentially important reason for imposing taxes on corporations is simply because corporations are important actors in modern society, and governments need – or at least want – all the tools they can to influence important actors.

5. How to Tax Corporations

Several possible rationales for wishing to impose taxes on corporations have now been discussed. What is perhaps most noteworthy about these rationales is that none of them is, in itself, particularly strong. Moreover, none of them – except to some extent the copycat motive – lends much support to the present mix or structure of corporate taxes found in Canada (or elsewhere). However, much the same might be said about many of the other taxes with which we are familiar such as the property tax and social security contributions. Tax policy, like all public policy, is the product of attempts to achieve often partially conflicting goals in a heavily constrained and changing economic, political and institutional context. The simple fact that there is no clear rationale for what we now do, does not mean that it would therefore clearly be better to do

¹⁸ A well-known early example of this approach was Galbraith's (1958) advocacy of regressive sales taxes as a politically acceptable way to expand the size of public-sector expenditures.

¹⁹ For examples of this "flexibility" argument, see Ontario Fair Tax Commission (1993, p. 417), Messere (1993, p. 327), and Ip and Mintz (1992). Policy flexibility was also the only reason the Royal Commission on Taxation (1967) gave for maintaining a national sales tax (in case it might prove useful for stabilization policy).

something else. On one hand, the existence of (say) 10 possibly good reasons for taxing corporations in particular circumstances suggests that there likely should be some taxes on corporations in most circumstances and countries. On the other hand, given the potentially high costs of increased policy uncertainty on investment and growth, there is much to be said for the adage that "an old tax is a good tax" – even if, as in the case of most corporate taxes, it is not very clear why the tax exists in the first place.

Despite this general caveat, I shall assume that at least some of the varied bag of possible reasons discussed earlier are considered persuasive. What are their implications for the design of corporate taxes? That is, to what extent does the *why* govern the *how*, and, if so, just how should tax design be influenced by the presumed rationale of the tax being designed?²⁰ Three aspects of this question are considered briefly in this section. First, should there be a tax on corporate profits and, if so, what form should it take? Second, should there be specific taxes on particular corporate inputs such as labour and capital, and, if so, what form should they take? And third, is there anything in the rationale for corporate taxation that tells us what the appropriate "mix" of corporate taxes should be?

Taxing Profits

It seems clear that there is only one possible argument mentioned above that might possibly support a substantial tax on corporate profits such as that which now exists, namely, the fact that everyone else, and particularly the United States, has such a tax. But this is by no means an unimportant or trivial argument.

Take Canada's participation in the North American Free Trade Agreement (NAFTA), for example. Both Mexico and Canada are economic small fry compared to the United States, and the leverage they can exert over U.S. policy and U.S. interests is slight compared to the influence the U.S. has over them. Even in the world of pure trade theory, if all economies are completely open to trade and factor flows, large open countries interested in maximizing their welfare will play by different rules than small open countries. From this perspective, the United States is clearly big in the context of the NAFTA, and what is in its national interests may not always be in the best interests of the other NAFTA parties. If this fact is coupled with one of those vital lessons that we were all supposed to have learned in kindergarten – that if you play with the big boys, you generally have to play by the big boys' rules – and the fact that international law is what nations let it be, there is little evidence in the economic sphere that U.S. lawmakers have been willing to let foreigners make law for U.S. citizens. If anyone's tax policy gets changed as a result of the NAFTA, it is more likely to be that of the weak than that of the strong. Nothing in the NAFTA may bear very directly on tax policy, but the reality is that closer international integration with the United States will make it even more appropriate for Canada to think very carefully about how any significant tax changes will relate to its dominant neighbour (Bird, 1995). In no area is this more likely to be true than with respect to corporate taxation.

²⁰ Of course, this discussion is not concerned with the traditional litany of tax designers – equity, efficiency and simplicity. With respect to corporate taxes, as with respect to all taxes, such matters should naturally be kept constantly in mind; but they are not the focus of the present discussion.

Specifically, two points seem to be critical with respect to taxing corporate profits in Canada. First, the statutory rate of any tax should be close to that used in the United States. If the statutory rate is much higher, it will undesirably attract deductions from abroad (a greatly underrated form of tax avoidance by transfer-pricing), and hence, reduce revenues. If it is much lower, some revenues may again be unnecessarily lost, though in this case to the U.S. Treasury rather than to the firm in question.²¹ Second, the base of any tax should also be close enough to that of the U.S. tax to ensure full creditability, which in particular means, under the existing rules as commonly understood, that it must permit full interest deductibility (McLure and Zodrow, 1996).

What this means, in turn, is that Canada should likely be one of the *last* countries to consider leading the way in adopting pioneering cash-flow profits taxes, desirable as such levies increasingly appear to some analysts from many perspectives (Cnossen, 1996). Indeed, if these constraints are taken seriously, while there of course remain many possible areas for desirable changes in the present corporate tax – with respect to dividend relief, resource allowances, inventories, and so on – the two most basic aspects of Canada's corporate profits taxes (the rate and the base, broadly defined) should probably not be tampered with, in the absence of clear evidence of similar changes in the United States.

Canada has a profits tax of the sort it does largely because its principal investment partners have such a tax. As long as this remains true, presumably we should continue to levy a tax on corporate profits. The fact that such a tax may have additional rationales such as backstopping the inadequate taxation of capital gains under the personal income tax (assuming the traditional objective of levying relatively comprehensive personal income taxation remains valid) and to some extent taxing entrepreneurial and other rents earned in the corporate form, is in a sense incidental. So to some extent are the distortion costs arising from the extent to which the present tax impinges on the normal return to capital – costs, which, in an open economy in a world where profits taxes are almost universal, to some extent at least arise only with respect to the "excise" differential from the "normal" average (worldwide) tax. Perhaps, surprisingly from this perspective, the very globalization of capital markets, which has often been said to make the future of the corporate profits tax dim (Gordon, 1986), appears to provide a sounder rationale for Canada's present corporate tax than would exist in a closed economy.

²¹ It should be remembered that these comments, like all brief remarks on the complex world of international taxation, are necessarily oversimplified – though probably not seriously misleading. Note also that if the *effective rate* mirrors the statutory rate the effects may be quite different. A higher effective rate marginal effective tax rate (METR) – net of any offsetting firm-specific benefits – may again reduce revenues by discouraging investment, but a lower one may increase tax base and revenues. The optimal position for Canada in relation to the United States would thus seem to be to have a slightly higher statutory rate but a lower effective rate, although this case is certainly not proved here.

Taxes on corporate profits are how the Canadian public sector shares in the profits of firms operating across borders. They are also the way in which economic rents generated by foreign investment in Canada are tapped. And, to a limited extent, they may be a way in which Canada can "export" some taxes to foreigners.²² Such taxes are not going to go away. Nor should they.

Taxing Costs

In contrast to the slightly disreputable arguments (at least in purely academic terms) that may rationalize to a certain extent something along the lines of the present tax on the profits realized by corporations, several more respectable arguments for imposing some form of tax on business activities in general were mentioned earlier. Specifically, to the extent it is not possible to recoup the marginal cost of cost-reducing public-sector outlays through user charges or to price negative externalities through appropriate charges, some form of additional broad-based general levy on business activity may well be warranted. Since corporations are the predominant form in which businesses are organized, and the easiest way to tax business activity, some form of taxation related to corporate inputs or outputs may perhaps be justified.

It is hard to find any support along these lines for taxing any one input, however, whether labour (payroll taxes) or capital (capital taxes). Instead, what this line of reasoning suggests is that a broad-based levy neutral to factor mix should be imposed, such as a tax on value added. Since the rationale for this tax – as with the original conception of the value-added tax (Sullivan, 1965) – is, loosely speaking, related to benefits, the appropriate basis would appear to be a low-rate, income-type value-added tax (VAT), or what Head (1996) calls a VAIT (value-added income tax) as opposed to a consumption-type VAT such as the Federal Goods and Services Tax (GST).²³

Compared to a conventional VAT like the GST, a VAIT has two important distinguishing features. First, it is a tax on *income*, not consumption: that is, it is imposed on profits as well as wages or, to put it another way, investment as well as consumption. Second, it is a tax on *production*, not consumption: that is, it is imposed on exports, not on imports. Another distinction might be in the way the tax is assessed (e.g. by the subtraction or addition method rather than by the more familiar invoice-credit system) or collected (e.g. on an accounts rather than transaction basis), but this is much less fundamental than the differences in base noted above.

From one perspective, a system in which two different types of VATs are imposed simultaneously might seem odd – as indeed it did to many when a similar approach was first proposed in Meade (1978). But the apparent oddity resides largely in the similarity of the names. If it makes sense to levy taxes on both consumption and income in terms of base, it may equally make sense to levy one or both (or parts of each) indirectly in the value-added form at the business level as well as directly on income and/or consumption at the personal level. As the recent U.S. discussion of

²² Of course, tax exporting works both ways, and we may well import more than we export in this respect. Note that exchange-rate adjustments cannot adjust very accurately for such industry-based shifting: changes in relative prices are what matter, not changes in relative price levels.

²³ Certainly, a levy of this sort would seem to make more sense for sub-national corporate taxes than a conventional income tax (Oakland and Testa, 1995).

so-called "flat taxes" demonstrates, it is critically important to disentangle several issues regarding taxation: What is the tax *base* (income, consumption, some mixture)? *How* is it to be assessed (directly, indirectly, and if the latter, with what form of levy, e.g. retail sales tax or VAT)? And finally, and least important (although unfortunately too often the focus of public discussion), with what *rate* or rates (flat, graduated)? Only when this taxonomy of possibilities is laid out, can the effects of all the relevant variants then be analysed and the many conflicting claims of the virtues of this or that proposal evaluated.

Obviously, this task cannot be undertaken here: but it should be understood that the mere existence of a VAT (the GST) in principle has absolutely nothing to do with the question of whether or not an alternative form of VAT (the VAIT) may or may not be worth considering as one option for corporate-tax reform. Such a tax might make most sense at the local or provincial rather than the federal level, and it would presumably be levied on all business and not just those organized in the corporate form. But what is perhaps a more relevant implication of this line of thought in the present context is that, while other rationales may perhaps be found for payroll taxes,²⁴ no persuasive argument in support of capital taxes of the sort found in Canada appears to exist. Such taxes are perhaps best considered the outcome of an uneven combination of pandering to the public perception of the desirability of taxing corporations, especially large corporations, and the interaction between the federal and provincial corporate-tax systems.

Choosing the Corporate Tax Mix

An additional possible argument for some tax on corporate capital that should perhaps be mentioned concerns the potential role of such taxes as in-lieu or presumptive taxes on corporate profits, particularly for smaller, more hard-to-tax companies (Sadka and Tanzi, 1992).²⁵ In effect, the argument here is that a certain minimum rate of taxable income can be assumed to be earned on all assets employed by corporations. If the actual rate exceeds the presumed rate, the normal corporate tax applies. If it falls short, the presumed rate (stated as a percentage of assets rather than as a rate of profits tax on presumed income, but calculated in effect as the latter) applies.

Such levies may be justified on two grounds: (1) The companies subject to this minimum alternative tax are cheating; they really earned at least the average return and have somehow managed to conceal their real profits. (2) If they really did not earn at least the average return, they should have done so; that is, they are inefficiently using their assets and should turn them over to someone – preferably a taxpayer! – who can make better use of them. Such arguments are no doubt somewhat appealing in the developing countries where they were originally made. Mexico, for example, has for some years had a tax on corporate gross assets. But it is difficult to see that they have much relevance for Canada.

Indeed, apart from a simplistic variant of the policy flexibility rationale mentioned earlier – the more instruments, the better – the optimal corporate tax mix in terms of the arguments set out above would appear to be a tax on corporate profits at close to U.S. levels – preferably with

²⁴ See Kesselman (1994, 1996) for general arguments for more use of payroll taxes in Canada. This range of questions cannot be considered in the present paper.

²⁵ See also Working Group (1992) for further discussion of alternative forms of minimum corporate taxes.

fewer distorting effects – combined with some form of general low-rate VAT on business (including capital goods) levied on an origin basis. The final section of the paper considers briefly whether such a system might be attainable in the circumstances of Canada today.

6. Getting There from Here

The previous discussion stressed the importance of the open economy assumption in deriving an optimal corporate-tax structure, whether viewed strictly in analytical terms or in a broader political-economy framework. As already suggested, albeit perhaps somewhat paradoxically, precisely because of the extent to which the present system has been shaped by international factors, the much-vaunted increased globalization of recent years has perhaps reduced rather than increased the need for such reform. To put this point another way, when reform is needed, it will come, much like the changes in the mid-1980s – because our major trading partners will be doing it too, and we will have no choice.²⁶

Two other factors are also critical in determining what can and should be done with respect to reforming corporate taxes in Canada. The first is the interaction of federal and provincial taxes, which is not further discussed here (see Vigneault and Boadway, 1996). The second is the cost of change. This argument applies to all policy changes: unless the expected present value (taking political and well as economic costs and benefits into account) clearly outweighs the costs of change, change should not be made. As mentioned earlier, "old taxes are good taxes" in the sense that the system is adjusted to their existence, so if it is changed, the costs imposed by change in the form of increased uncertainty, the need to learn a new system and so on may be large in a complex modern economy. In no area is this more true than with respect to taxes on the main economic actors of our society – the corporation.²⁷ The net benefits from any major change must be very clear to make it worthwhile.

What this line of argument implies is that the most rewarding path is likely to be to make adjustments at the margin of the present corporate profits tax. Such adjustments may of course be very important, particularly for specific industries, but they seem unlikely to constitute a major corporate tax reform. As noted earlier, really major reforms (such as the introduction of some form of cash-flow tax) are unlikely to be sensible in a small open economy unless it is, so to speak, following the leader. Similarly, replacing present capital (and perhaps payroll) taxes by a low-rate VAIT seems unlikely to be worthwhile if only because no one at any level of government is going to want to explain to the Canadian people why they should have not just one, or two, but three VATs!

²⁶ Of course, those involved in the arduous work of developing and carrying through the corporate-tax changes of the mid-1980s in Canada no doubt think, and rightly so, that their efforts had much to do with what happened. Similar reform teams in other countries could say the same. But the point is simply that when one observes a widespread phenomenon like the corporate tax changes of the 1980s, there is clearly much more at work than the exercise of purely domestic-driven policy concerns and choices: on this, see the introduction to Cnossen and Bird (1991).

²⁷ In the words of Vickrey (1991, p. 132), a strong advocate of abolishing the corporate tax, "It is an additional item on the bill of indictment against the tax that getting rid of it is so difficult."

Nonetheless, despite this general pessimism as to the possibility of major reform, perhaps it may prove possible, bit by bit, to expand the capital and payroll taxes in the direction of a VAIT, for example, by moving the base of the former to non-labour incomes generated (the sum of profits, interest paid, and rents paid or alternatively, and perhaps more attractively, to value-added less wage costs, but not deducting capital expenditures) and taxing payroll costs at the same rate. Perhaps, as and when it proved feasible, the provinces might similarly be induced to move their corporate taxes in this direction by disallowing the deduction of capital (and payroll) taxes for federal corporate tax purposes but allowing the deduction of more neutral general factor taxes.²⁸ Whether this can be done or not, perhaps the federal government should consider replacing its own present taxation of corporate capital in favour of a more general cost-based levy of the VAIT type. But further exploration along these lines must be left for another day, and another paper.

²⁸ This could be viewed as an extension of the current limitation of deductibility for increases in such taxes. From this perspective, it is unfortunate that the terms of the recent Memorandum of Understanding with respect to harmonization of the GST and the provincial sales taxes in several Atlantic provinces is in part at the cost of inducing further provincial recourse to differential factor taxes.

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Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

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Tax Policy and Job Creation: Specific Employment Incentive Programs

Ben Cherniavsky
Technical Committee Research Analyst

December 1996

WORKING PAPER 96-3

Prepared for the
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Tax Policy and Job Creation: Specific Employment Incentive Programs

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December 1996

WORKING PAPER 96-3

Prepared for the
Technical Committee on Business Taxation

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Abstract

This paper provides a selective survey of literature from the last two decades on tax incentives for employment creation and for recruitment from specific population groups. Particular attention is paid to Canadian experience, but references to experience in the United States are included. Based on the literature surveyed, generalizations as to the effectiveness of marginal employment tax credits and of targeted-recruitment incentives are advanced.

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Executive Summary

Similar to the late 1970s and early 1980s, the first half of this decade has been plagued with unacceptably high levels of unemployment in most Western economies. While some of the previous jargon of "stagnation" has been replaced with the contemporary counterparts of "jobless recovery" and "downsizing," the fundamental issue that faces the government remains the same: how to get people back to work. Once again, policy makers are pressured to take an active role in improving employment opportunities, and tax incentives designed to stimulate jobs are an option open for discussion.

Over the past 20 years, there have been a number of experiments with fiscal intervention in the labour market, so this time around policy makers are endowed with the advantage of retrospect. Hence, this survey selects a number of these tax-related employment programs, reviews their design, and analyses their effects in an attempt to shed some light upon the potential costs, benefits, and challenges that such policies incorporate.

Although there are a multitude of ways in which the government can use taxes to stimulate employment, this survey has found that most experiments with direct labour market fiscal intervention have been in the form of either marginal or targeted-recruitment tax credits for employers. The former is a credit against tax for any firm that adds incremental employees to its labour force, while the latter is available to firms that hire specific "types" of workers – usually the "unskilled" or "disadvantaged." Marginal employment tax credits, in effect, subsidize firms' wage costs as an incentive for employers to increase production and labour demand, and/or substitute new workers for capital. While decreased wage costs may also result from the use of targeted-recruitment tax credits, the degree to which incremental increases in employment are stimulated is not as important as the effect the initiative has on improving employment opportunities for specific types of individuals. In fact, some targeted-recruitment programs have not even included provisions to protect existing (non-subsidized) workers from being replaced with program participants (subsidized workers). In such cases, the program could have been deemed "successful" even if 10,000 targeted workers had been hired and 10,000 non-subsidized workers had been displaced.

All the surveyed programs, with the exception of Canada's UI Premium Relief (essentially a payroll tax freeze), were, in effect, wage subsidies, but their rates, limits and administration all varied enormously. Their respective costs, benefits, strengths and shortfalls were similarly diverse. The attached table – Summary of Employment Stimulating Tax Policies – highlights the similarities and differences amongst these programs and illustrates how difficult it is to draw a general and definitive conclusion about their effectiveness in creating jobs.

Despite the somewhat patchy results, through the course of analysing these programs and reviewing related economic literature,¹ support was found for the following four general observations about tax incentives and job creation:

1. According to the cases studied in this survey, effectiveness in increasing the employment of workers who would not have been recruited in the absence of a tax credit is mediocre. As a result, these programs generally incur high costs per net new job.
2. Tax incentives are preferred to direct government job creation programs. As Robert Solow concludes: "[because] profit incentives operate more or less as they are supposed to ... wage subsidies have some advantage over direct job creation according to the efficiency criterion. They are probably also to be preferred according to the equity criterion: they offer at least the possibility of a start in the mainstream labour market, whereas direct job creation at least runs the risk of creating a sort of caste."²
3. Even though there is no proof that they are any more cost-effective, the literature suggests that targeted employment tax credits are preferred to marginal employment credits. The rationale is based on economic, political and administrative factors: (i) it is easier to measure effects and control abuse for programs that single out particular types of individuals than for those that broadly attempt to assist anyone who is in search of work; (ii) assisting those workers who possess relatively little – if any – bargaining power minimizes any inflationary impact on wages;³ and (iii) any consequential displacement of non-subsidized workers may be socially acceptable if it comes in the process of helping those who are least able to help themselves.
4. Tax incentives for job creation are not completely ineffective. While they do prove to be expensive, firms do respond to varying degrees and some jobs will ultimately be created. Hence, it is up to the government and the electorate to determine at what point the cost per job is too high.

¹ See OECD (1982), OECD (1995) and OECD (1996).

² Solow (1980).

³ See Gera (1988), p. 10.

1. Introduction

This report surveys the various job creation tax policies that have been implemented and/or are currently in use in different countries around the world. By summarizing previously published material regarding these particular programs, the survey presents a broad review of the numerous policy options that could be considered in Canada, with supporting empirical analysis of impacts where available.

While this survey is not as interested in the technical theory behind such programs as it is in their simplicity and efficacy, the reader should be aware of certain general relationships between taxation and job creation that the literature holds to be true. First of all, it is recognized that income, payroll and even consumption taxes create a "wedge" between the price of labour that the employer must pay to hire someone and the purchasing power that the employee takes home from that payment. As a result, changes in these tax rates are expected to influence the decision of workers to enter the labour market or the decision of employers to hire.

Notwithstanding this "tax wedge," there appears to be no evidence of a simple correlation or linkage between the general level of taxes in an economy and the level of unemployment. Data furnished by the OECD illustrate that Sweden has the highest tax/GDP ratio of all member countries, with the third-lowest unemployment level, whereas Australia has the lowest tax ratio, with relatively high unemployment.⁴ In light of such data, it is difficult to qualify cuts in personal or corporate taxes as specific job creation policies, even though they may often be presented as such.⁵

Accordingly, this survey is only interested in tax policies that reflect a government's direct attempt at influencing the labour market. Alterations in payroll taxes, for example, constitute a change in fiscal policy that is specifically aimed at stimulating employment. A similar example of such initiatives, and one that has been implemented by numerous governments, is a tax credit to firms that increase the size of their payroll. This option is also known as a marginal employment subsidy executed through the tax system. As will be presently illustrated, such incentives can also be used to improve the employability of particular workers who have been chronically displaced from the job market and are dependent upon social assistance; in these cases, the policy is known as a recruitment subsidy. Using either payroll tax cuts or marginal employment subsidies, policy makers essentially lower wage rates and decrease a firm's marginal and, to some extent, average costs in the hope that this will stimulate production and, in turn, labour demand. These supply-side tactics, however, rest on the assumption that the demand for the output of the industries in which the firms operate has significant price elasticity and that, consequently, as prices fall with costs, sales will increase. Because tax incentives for job creation change the relationship between the cost of capital and the cost of labour, these policies could also stimulate employment if capital and labour are substitutes for each other in the production process.

⁴ See OECD (1995).

⁵ This has most recently been demonstrated by the Ontario provincial government in May of 1996.

In evaluating the effectiveness of job-stimulating tax policies, it is useful to distinguish among direct effects, indirect effects, dead-weight loss and net effects.

Direct effects – Simply put, the number of jobs subsidized in a specific industry, a targeted group of workers, or the economy at large by a particular tax policy is that policy's *direct effect*. For example, if 1,000 new jobs are created in the steel industry because of a 50-percent tax credit that is offered to all firms in that industry which increase their payroll, then these new jobs represent a direct effect of the policy.

Indirect effects – Any fiscal stimulus will cost money. If the selected policy is to remain revenue neutral, the financing will likely be done through an increase in some other form of taxes, which may, in turn, raise the aforementioned tax wedge in another industry. Returning to the steel industry example: suppose the lost revenues from the tax credit are replaced by higher tax levies on gasoline; this would, in effect, increase the "tax wedge" (i.e. the financial burden) placed upon the energy sector. If this results in decreased demand and profits, production may fall and jobs may be lost. Hence, an *indirect effect* of any job-stimulating tax policy may be a decrease in employment in other areas of the economy. Another *indirect effect* may be the substitution of existing employees with new subsidized workers. Under these circumstances, each subsidized individual that the firm hires replaces another more costly individual that the firm has fired; once again, job creation is offset by job elimination.⁶

Dead-weight loss – Dead-weight loss of a program may occur when tax incentives create a job that would have been created in the absence of any government program.

Net effects – Hence, the success of any job-stimulating tax policy depends upon a careful measurement of the total jobs that were created, minus the sum of all the jobs that either were lost because of the policy or would have been created even in the absence of the policy. This represents the *net employment effect* of the tax program. As this survey will demonstrate, this *net effect* is not easy to determine.

With these principles in mind, this survey now turns to the examination of the selected job-stimulating tax programs.

2. Survey of Selected Programs

Employment Tax Credit Program (Canada)

Purpose: The 1970s were characterized by a broad acceptance of job creation programs as attractive policy options for abating the high levels of unemployment that persisted in that decade. In March 1978, the government introduced the Employment Tax Credit Program (ETCP)

⁶ For the purpose of keeping this introduction succinct, only a selection of the most pertinent indirect effects have been mentioned. There are, however, a number of other indirect effects – both negative and positive – which are discussed more specifically in Marchildon (1995).

specifically to stimulate employment in the private sector by granting tax credits to any "eligible employer"⁷ who hired an *incremental* "eligible worker."⁸ As will be presently explained, the ETCP was designed to favour those in the unskilled labour sector who had been suffering long-term displacement from the work force. The size of the tax credit varied from region to region to assist the particular areas of the country that were plagued with above average-levels of joblessness. At the time it was introduced, the government estimated that the program would produce 50,000 jobs a year. It was also hoped that a by-product of the ETCP would be an increase in the long-term employability of the participants beyond the period for which they were subsidized.

Design: The ETCP offered an employer a business tax credit equal to \$1.50, \$1.75 or \$2.00 per hour for each worker hired in addition to the normal work force of the firm.⁹ The applicable rate depended on the region in which the firm was based, with the higher rates going to the more seriously afflicted areas. The employer could claim up to 40 hours a week for a period not exceeding nine months (later changed to 12). The credit was both non-refundable and non-transferable; however, if the firm's federal tax was less than the total amount of the tax credit earned in the fiscal year, the difference could be carried forward for up to five years. Finally, to be deemed "eligible employment" for the credit, the position for which the worker was hired had to satisfy the following six criteria:

- the additional employment was a direct result of the program; that is to say, the job would not have been created in the absence of the subsidy;
- the subsidized job normally employed the worker for no less than 35 hours a week;
- the wage paid was no less than the minimum wage if the position was subject to such legislation; otherwise the going wage had to be at least 25¢ per hour above the rate of the applicable tax credit;
- the employment had to last for a minimum of three consecutive months;
- the employment was not directly subsidized by any other government program; and
- the employment was not of a personal domestic nature (i.e. maid, etc.).

By offering the employers a subsidy rather than the workers, the ETCP was designed to shift the firm's demand curve for labour. As the firm's relative cost of labour to capital was decreased, an incentive was created for it to substitute the latter with the former. As well, the fixed dollar value per hour subsidy meant that as the going wage rate for various positions decreased, the relative

⁷ "Eligible employer" being one who had been carrying on business in Canada for more than 52 weeks immediately preceding the date of participation in the ETCP.

⁸ "Eligible worker" being a Canadian citizen or permanent resident of working age who had been unemployed and registered with a Canada Employment Centre (CEC) as actively seeking work for eight consecutive weeks or more (later changed to two weeks or more), and who had been referred to the eligible employer by the CEC.

⁹ Employers were given a detailed method for calculating their normal work force prior to the ETCP.

size of the subsidy increased. Hence, the program implicitly favoured unskilled and low-paid labour. No provisions were made to encourage firms to provide training for the program's participants.

Analysis: In the first year the ETCP fell considerably short of its target (50,000) by producing only 19,934 jobs in spite of a large federal advertising campaign. The government responded by conducting a survey to investigate what was wrong with the system. It discovered that the majority of businesses viewed the program favourably but were reluctant to respond, primarily because:

- of the requirement that the job be incremental in nature and deemed as such by the employer in the agreement to hire;
- of the requirement to use Canada Employment Centres' clients/services;
- the subsidy rate was too low;
- of the requirement that new employees had to be unemployed for at least eight weeks before being hired, which was viewed as too restrictive; and
- employers feared an audit.

In the second year the federal government modified the ETCP in response to these concerns,¹⁰ and the number of jobs created under the program more than doubled to 48,427. The positive results prompted the government to extend the program for another year and in 1980/81 an additional 47,418 jobs were produced.¹¹

As discussed in the Introduction, notwithstanding these impressive figures, such a program must be examined in much more detail before its overall effectiveness can be accurately measured. An Economic Council of Canada report¹² attempted to determine the ETCP's ultimate effect on employment; it came up with mixed results. On the one hand, the ETCP was deemed to have been a socially efficient program, in that the social value of the output (SVO) that it created exceeded the social opportunity cost (SOC) of the resources used. To arrive at this conclusion, the researchers measured the SOC by aggregating three factors: (i) the probability of finding alternative employment for ETCP workers; (ii) the proportion of time for which the ETCP worker was expected to receive unemployment benefits when not working; and (iii) the average value of leisure time to the worker when he or she was unemployed. This value was then subtracted from a proxy measurement for the SVO created – namely, the total wages paid out under the ETCP. The difference between these two measurements was consistently positive for all 10 provinces; moreover, the size of the difference (i.e. the net social gains) varied correspondingly with the size of each province's unemployment rate. This finding validated the provisions within the ETCP that favoured certain regions over others.

¹⁰ Essentially the duration of the subsidy was extended from 9 to 12 months and the unemployment qualification period was reduced from 8 to 2 weeks.

¹¹ At the end of the program's existence a total of 113,182 jobs had been created.

¹² See Gera (1988) or Gera (1987).

On the other hand, the report also determined that although the ETCP was socially efficient, its ability to stimulate *new* jobs was marginal. Even though an employer could not theoretically qualify for a subsidy without proving that the job was incremental in nature, the distinct possibility remained that the worker would have either found unsubsidized employment somewhere else or been hired by the firm even in the absence of the subsidy. To account for this, the report constructed a model to test for the probability of such a dead-weight loss in the program. The results yielded a figure of 67 percent which suggests that only one of every three ETCP participants represented a real incremental gain in employment, while two of every three represented a mere transfer to the firm. Using these figures, along with data on the total cost of the program and number of participants, the cost *per new job* was determined to be \$9,555.¹³ These results were backed up by another estimate of the ETCP's incremental effect on employment by the CEIC's Strategic Policy and Planning branch. This study found that the maximum degree of incrementality was 37 percent; correspondingly, 63 percent of the jobs created by the ETCP represented transfers (i.e. they would have occurred without the program).¹⁴ However, it should be noted that the dead-weight probability (67 percent) was the national average figure; when the estimates were broken down by provinces, this probability varied inversely with the provincial unemployment rates. Once again, this at least justified the regionally selective nature of the ETCP, even if its overall ability to create new jobs was dubious.

Finally, it was also determined that the ETCP had no positive impact on either the long-term employability of its participants or their wages within or beyond the period for which they were subsidized. However, this is not surprising because, as mentioned earlier, no incentives existed within the ETCP to provide workers with training, and the majority of jobs that were stimulated paid relatively low wages and required little or no skill. Similarly, the nature of the program was to favour those who had previously experienced long-term displacement from the work force and were thus most likely to experience it again.

The evaluation of the ETCP suggests that it was generally a "promising policy approach,"¹⁵ particularly when compared with other direct job creation efforts. Both studies to which this survey referred concluded that the ETCP's net social benefits outweighed its shortfalls in net job creation and skills improvement. The favourable outlook on the ETCP was also based on the equity argument for shifting demand to unskilled and low-wage labour. In the final analysis, it was asserted that:

well-designed marginal wage subsidies to the private sector can provide employment increases at lower budget costs than other labour market policies, despite displacements, substitution and windfalls to employers that may accompany them. Subsidies focussed on the long-term unemployed and other target groups (especially youth), combined with sound macro-economic and selective labour market policies, can serve two objectives:

¹³ Gera (1987).

¹⁴ See CEIC (1982).

¹⁵ Gera (1988).

a counter-cyclical one by generating the planned rate of new jobs, and a structural one by promoting more equitable access to employment opportunities.¹⁶

Still, the high costs incurred by the government per new job created must not be overlooked.

Small Business Unemployment Insurance Premium Relief Program (Canada)

Purpose: By the end of the 1980s it had become strikingly clear that small businesses were the leading source of employment growth in Canada.¹⁷ Despite being subjected to generally favourable tax rates by international standards, the high regulatory nature and administrative costs – imposed by two levels of government (GST and PST, for example) – of paying taxes in Canada were luring many small businesses to the United States by the early part of this decade. At the same time, unemployment in Canada was increasing. In response to these developments, in 1992 the Canadian government introduced the Small Business Employment Investment Package, which included the Unemployment Insurance Premium Relief Program (UIPR). This program granted small businesses a one-year freeze on their (employer) UI premiums (a form of payroll tax) so that any incremental hirings would not incur incremental UI costs. Thus, the UIPR acted as a tax incentive to marginal job creation in the small-business sector.

Design: The UIPR was introduced in December 1992 as a simple temporary one-year program to enhance small-business employment and production opportunities by freezing 1993 employer UI premiums to the amount paid in 1992. Through the payroll deduction remittance system, a credit was provided to the employer equal to the difference between 1992 UI premiums paid and 1993 UI premiums due. The size of the credit was, however, restricted to the lesser of \$30,000 or the amount by which the employer's share of 1993 UI premiums (limited to a maximum of \$60,000) exceeded the 1992 UI premiums. These provisions ensured that the incentive went to small businesses only. Any business (incorporated or unincorporated) whose employer's share of UI premiums in 1992 was less than \$60,000 qualified to receive benefits – assuming the average industrial wage, this effectively meant that businesses employing fewer than 50 employees were eligible.¹⁸ To make the size limit effective, the design restricted access to the credit by associated businesses and successors. New businesses, started in 1993, were subjected to no UI premiums on their payroll for that year. The funding for this incentive came from the government and not the UI fund. Finally, the UIPR stipulated that charitable organizations were eligible for the credit, but public-sector bodies were not.

Analysis: Anecdotal evidence suggests that, despite Revenue Canada's strong marketing efforts in contacting over 1.2 million firms, many eligible employers simply may not have been aware of the UIPR program until it was too late. First, the "cost" of the program (\$270 million) was about half

¹⁶ Gera (1987).

¹⁷ Small business accounted for more than 80% of total jobs created between 1979 and 1990 (Department of Finance, 1992).

¹⁸ This was estimated to include approximately 98% of all businesses, which employed approximately 35% of all workers and paid around 25% of the employers' share of UI premiums.

of the amount anticipated. Second, Revenue Canada had requested that eligible firms submit the appropriate UI forms at the same time as T4s to allow for easier administration. These UI forms, however, were often submitted long after the T4s. Indeed, this suggests that some employers who received the benefit were unaware of the program until they were informed of it by their accountants at the end of the fiscal year.

Programme d'aide à l'intégration en emploi (Quebec)

Purpose: Throughout the 1980s changes in a combination of social, economic and demographic factors increased the dependency level on welfare of a sector of Quebec's population. Specifically, the number of welfare recipients in that province rose by 44 percent between 1977 and 1987.¹⁹ In response to this, the Quebec government committed itself to considerable reform of its welfare system in 1989. The intent of this reform was threefold: (i) to identify those on welfare who could be considered employable; (ii) to introduce a stricter and more all-encompassing system of work incentives; and (iii) to compile better statistics on the welfare population in order to understand better the dynamics of welfare use. One of the six programs which resulted from this reform was the *Programme d'aide à l'intégration en emploi* (PAIE) program – introduced in May 1990. Similar to the ETCP (see above), PAIE was designed to stimulate employment opportunities by offering employers wage subsidies. However, despite this shared goal between the two schemes, PAIE was distinctly different in a number of ways. First of all, PAIE specifically targeted long-term welfare recipients as the group that it wanted to assist; as a result, it was more interested in moving these particular individuals off of welfare and into the job market than it was in *incremental* increases in the economy's overall level of employment. Second, the subsidies that PAIE offered to employers represented direct government transfers and were not administered through the tax system. Third, not every business that hired someone on welfare could receive the subsidy; instead, as will be discussed below, appropriate employers were approached by the government to participate in PAIE. Finally, because PAIE was most concerned with providing work experience for welfare recipients, it made the subsidies available to both the private and the public non-profit sectors. It was hoped that ultimately, by providing experience to the chronically unemployed, their long-run dependence upon welfare would end, thus reducing the financial burden to the Quebec government.

Design: PAIE offered employers a maximum subsidy of \$160 a week per worker in the private sector and \$204.75 per worker in the public sector. The subsidy was available for up to 26 weeks, and the minimum hiring requirement was that the position be created for at least 18 weeks of full-time work (35 hours per week or more).²⁰ To be eligible, recipients had to have been on welfare for at least six of the previous 12 months, with selection priority increasing according to the amount of time the individual had been dependent on the system. The program also provided participants the health-care benefits to which they were entitled under welfare. Participation in

¹⁹ Reynolds (1995a).

²⁰ Subsidies for part-time work were also available as long as the pay exceeded welfare allowances.

PAIE also earned entitlement to Unemployment Insurance, a further benefit for those who were not able to find work after the program.

The program's employers were selected by the government on the basis that they were very likely to hire the participants after the subsidy expired. Most of the firms were small to medium sized businesses that offered positions in the services sector.²¹ While PAIE was not especially concerned with minimizing dead-weight loss, it did take explicit precautions to avoid the substitution effect of employment. Before hiring a PAIE participant, employers had to submit a written statement to the government showing exactly how many employees were currently in the division into which the participant was being placed. The employer then had to agree not to fire any other employees or reduce working hours to make room for the PAIE worker; the government was permitted to verify this agreement at any time.

Analysis: In 1991 the Quebec government set out to evaluate the effectiveness of PAIE by monitoring two separate groups of welfare recipients by telephone over a period of 19 months. The "success" of the program was understood as integrating participants into the work force and reducing their dependence on welfare. One group consisted of welfare recipients who had been actively participating in PAIE; the other group represented "employable unemployed" individuals on welfare who either chose not to take a job through the program or who made themselves available but were not placed with an employer.²² Following their subsidized work experience, 70 percent of PAIE participants had found at least one job within the 19 months under examination;²³ by contrast, only 30 percent of non-participants had found a job on their own within that same time period. However, there is considerable falling off in these results as the time period of the analysis is extended. Specifically, only 44 percent of PAIE participants were employed 19 months after their subsidized experience, compared with 18 percent for the other group. Even more strikingly, only 30 percent of the 70 percent who had found at least one job were employed for the entire 19 months under examination; in comparison, a meagre 7 percent of the "employable" group who were not placed under PAIE were employed for this entire period. Finally, of those PAIE participants who had found work at some point within the 19 months, 55 percent worked from that point until the end of the study. Once members of the comparison group found a job, only 48 percent worked continuously until the end of the 19-month study.

Another noteworthy finding was the program's different degrees of effectiveness between those PAIE participants who were placed in the private sector and those who were placed in the public sector. All of the above statistics are the averaged results for the two groups. However, when they are broken down, the figures are consistently more favourable for those who worked in the private sector. For example, while 70 percent of all the participants had at least one job following the program, the respective figures for private- and public-sector workers were 74 percent and

²¹ 75% of participants found work in the services sector (Reynolds, 1995a).

²² Although the two groups shared similar characteristics in terms of age, sex, education, etc., there may be a bias in the sense that the non-participants consisted of some individuals who made themselves available but were not placed, suggesting that they were inherently less employable than those who found employers.

²³ This figure must be adjusted for the fact that of those participants who found a job following PAIE, 29% were employed *at least once* in another separately subsidized job.

65 percent – a noticeable difference. Likewise, 49 percent of those PAIE participants who had received their experience in the private sector were employed 19 months following the program, whereas the figure was 39 percent for those who had been placed in the public sector. A similar observation was made for the former PAIE participants who at some point found work and held onto it for the remainder of the study: the 55-percent figure was an average between 58 percent of those who had been placed in the private sector and 50 percent of public-sector participants.

These results generally suggest that while PAIE was successful in integrating welfare recipients into the work force, its effects on the permanent rate of employment once participants left the program were less significant. However, this does not unequivocally imply that those who entered but ultimately left the work force immediately returned to the welfare system. On the contrary, the early evidence of the 1991-93 evaluation indicates that the program had a positive impact with respect to its second goal (i.e. reducing welfare costs): 63 percent of PAIE participants who found a job after the program left welfare for the entire 19-month period, while the figure was 49 percent for the comparative group of non-participants. The figures, however, must be taken as preliminary because data are not yet available for the period beyond the 19-month study.

Although it is difficult to determine the net financial effect of the program without a thorough analysis by the Quebec government, the displacement effects of PAIE are clear. When asked what they would have done in lieu of a subsidized PAIE employee, 51.6 percent of 1,600 surveyed participating employers in the private sector indicated that they would still have hired someone for the position.²⁴ This suggests that the program was not all that successful at creating new jobs. However, as mentioned before, this result is not completely contradictory to the program's main goal of integrating welfare recipients into the work force. Even if the employer was going to hire anyway, at least PAIE encouraged the employment of those most in need of work, who may not have been the most qualified.

According to the analyses considered in this survey, the ultimate results of PAIE can be summarized as follows:

- its most significant outcome was targeting welfare recipients and successfully integrating them into the work force;
- it had a smaller but significant effect on keeping this group employed over the long run and decreasing their dependency on welfare;
- it offered no improvement in wage rates following participation in the program;²⁵
- there were relatively few new jobs created and the substitution effect was negligible;
- once a participant leaves a government-sponsored program in search of work, private-sector experience tends to be more valuable than public-sector experience.

²⁴ In the public sector the number was only 10%, but this merely reflects the consistent shortage of funds therein.

²⁵ The comparison group in the study earned, on average, one dollar per hour more than PAIE participants who used their experience to integrate into the work force.

Co-operative Education Tax Credit (Ontario)

Purpose: In May of 1996 the Ontario government announced the introduction of the Co-operative Education Tax Credit (CETC). This incentive is available to all Ontario corporations who provide co-op work terms to students enrolled in such programs provincially assisted post-secondary institutions in Ontario. The purpose of this plan is to enhance the long-term job prospects of Ontario's youth by encouraging firms to hire these "inexperienced" individuals who are struggling to break into the labour force once they finish school. In this sense, the program is a recruitment subsidy, which targets a specific group (youth), rather than a marginal incremental subsidy, which is interested in increasing the overall level of employment.

Design: The CETC allows firms to deduct from their Ontario corporate tax liabilities 10 percent of the eligible costs incurred in providing co-op work students with employment in the company. Eligible costs are deemed to be "salaries, wages, and other remuneration paid by the Ontario corporation to a student in respect of a qualifying co-op work placement and/or payments by the Ontario corporation to a university or college in respect of a qualifying co-op work placement."²⁶ The credit will be applied to the corporation's outstanding tax liability (subject to corporate minimum tax) for the year in which the qualifying co-op work placement ends. If the size of the credit exceeds the total taxes due, the difference will be fully refunded. However, the annual size of the CETC is limited to \$1,000 per student. No time limit for this program has, at present, been announced. The CETC provides no explicit protection against employment substitution (i.e. replacing existing workers with subsidized ones).

Analysis: As mentioned, the CETC was introduced in Ontario's 1996 spring budget; it did not take effect until August 31, 1996. No analyses of the program's impact are available yet.

WIN-Welfare Tax Credit Program (United States)

Purpose: In 1968 the U.S. government implemented the Work Incentive Program (WIN) as part of its social policy. The goal of this program was to reduce long-term dependency on welfare support – specifically AFDC (Aid for Families with Dependent Children). Its provisions offered employment, training and support services to these public assistance recipients in order to help them qualify for and find employment. To make the program more efficacious, in 1971 the government introduced the Welfare Tax Credit (WTC), which granted any AFDC recipient registered under WIN a wage subsidy in the labour market. The subsidy took the form of a tax credit that was available to any employer who hired a WIN participant. Although the credit is no longer available under current U.S. tax laws, it was initially designed as a "permanent" program with no specified termination date. To this degree, its purpose was to counter structural, rather than cyclical, unemployment.

²⁶ Ministry of Finance (1996).

In 1975 the program was expanded to include all AFDC recipients regardless of whether or not they were enrolled in WIN. Despite other WTC revisions in 1975, no restrictions were ever placed on the program to prevent the substitution of existing workers with subsidized ones. In this sense, the WTC was a recruitment subsidy that was primarily interested in assisting a targeted group of chronically unemployed, able-bodied workers – namely, AFDC recipients.

Design: The WTC was designed to stimulate employment from the demand side by offering a wage subsidy to the employer. Specifically, between 1971 and 1975, the program offered any employer who hired an eligible worker a 20-percent tax credit up to a limit of \$1,000 on each employee's annual wage; this rate fell to 10-percent after the firm's annual credits reached a total of \$25,000. Although no limitation was placed on the total amount of credit available beyond \$25,000, it could not exceed the total tax liability of the firm in each respective fiscal year. However, credit could be carried back for three years or forward for seven. The only other restriction placed upon the employer was that the firm retain the worker for at least two years.

In 1975, when the program was extended to include all AFDC recipients, a number of other minor changes were implemented to make the program more attractive to firms. Most notably, the required length of employee retention was reduced from two years to 90 days. As well, although the rates were held constant, the credit limit of a 20 percent wage subsidy up to \$25,000 was extended to \$50,000, after which the credit rate dropped to 10 percent.

In 1979, the program was changed again: the tax credit was increased to 50 percent of wages up to \$6,000 per worker for the first year of employment and 25 percent of wages up to \$6,000 per worker for the second year.

Analysis: The record of the WTC in stimulating firms to take on eligible workers was discouraging. First of all, the credit was substantially under-utilized: "A private study of the program found that in only 25 percent of the cases in which an employer was eligible to receive the credit did he actually request certification for the WTC."²⁷ Other figures indicate that between 1973 and 1975 the WTC was granted to only 88,000 workers; yet 515,000 WIN participants entered the labour market and 952,000 new enrollees signed up with WIN during this same period of time.²⁸ Such a low level of response to the WTC has been attributed to employer unwillingness to hire under any program that requires additional paperwork. The stigmatization of subsidized workers as inferior has also been cited as an explanation for employers' reluctance to respond to the incentive.

²⁷ OECD (1982).

²⁸ Hamermesh (1978).

Another indication of the program's shortfall is that even in cases where the credit was used, employer surveys suggest that the WTC merely acted as a transfer to employers who would have hired the subsidized worker even in the absence of the program. Two separate studies cited by Daniel Hamermesh's analysis both estimated that only 10 percent of the employers who used the WTC attributed the hiring of a subsidized worker to the credit.²⁹

At least this rather disappointing attempt at integrating welfare recipients back into the labour market did not come at an enormous cost. In 1973, \$9 million was claimed under the WTC; based on an estimate of 25,000 certifications, the average government subsidy per worker came out to only \$360.³⁰ This estimate, however, represents cost per claim and not cost per new job created. A more involved assessment of the WTC that compared the costs (lost corporate tax revenues) with the savings generated (welfare grant reductions, increased social security and personal income tax collections) estimated that it cost approximately 53¢ in lost revenue to stimulate \$1 of potential welfare savings.³¹ These figures indicate that, although the program was under-utilized, it was cost-effective.

Hence, in the final analysis, the evidence from the WTC suggests that the major flaw with such a program was not in its overall costs, but rather its inability to stimulate employer participation. Moreover, the evidence indicates that even if the program offered to employees is extensively used, there is a difficult challenge in designing it so that the subsidization is not a mere transfer to the firm.

New Jobs Tax Credit (United States)

Purpose: Introduced in 1977 for a predetermined two year period, the New Jobs Tax Credit (NJTC) represented an attempt to stimulate jobs through employment subsidies to private industry. Its implementation was viewed as a counter-cyclical measure to combat the high unemployment that was plaguing industrialized economies at that time. Hence, its focus was on an overall short-term marginal improvement in employment rather than promoting the job opportunities of a targeted group.³² Its design was such that growing industries and, to a lesser extent, small businesses had the most to gain from the program.

Design: The NJTC was available to any private-sector employer based in the United States. It offered firms a tax credit against corporate (or personal) income tax liability in one of two forms. The credit was calculated as either 50 percent of the excess total wages over 105 percent of the previous year's total wages *or* 50 percent of the increase in total FUTA wage costs (federal unemployment insurance contributions) over 102 percent of the previous year's FUTA wage base – whichever was the smallest. The size of the subsidy could not exceed the total annual tax

²⁹ Ibid.

³⁰ Ibid.

³¹ OECD (1982).

³² It should be noted that an additional subsidy was offered for every disabled person who was hired; however, notwithstanding this provision, the program was not designed with this particular group's employment needs as an overriding concern.

liability of the firm; if a firm paid no tax in the fiscal year, the credit could be carried back for three years or forward for seven. The credit was also limited to the smaller of 25 percent of all FUTA wages or \$100,000.³³ By subsidizing employment, a shift from capital to labour in firm production was expected.

This system was particularly advantageous to those industries where demand was increasing, as it facilitated either the entry of new firms or a production increase for existing firms. Hence, the NJTC innately favoured growing industries and smaller businesses. At the same time, the system presented a disadvantage to firms that increased production through contracted work rather than an increase in the payroll.

The nature of the NJTC clearly encouraged incremental hirings³⁴ and provided no incentive for firms to substitute existing employees with subsidized ones. Similarly, the two-year limit was imposed not only in the interest of countering cyclical unemployment, but also to safeguard the labour market from a saw-tooth employment pattern:

A long-run New Jobs Tax Credit program might induce a firm with constant labour requirements to increase employment the first year and inventory its extra output, then decrease employment in the second year in order to qualify for the credit in the third year, and so forth.³⁵

For firms whose payroll level fluctuates with supply and demand, a long-run credit could induce an "average cyclical effect" that may simply intensify economic cycles. For example, if a firm is experiencing a downturn but foresees a boom in the year to come, then – despite the expected increase in demand for labour – it may postpone hiring in the recessionary period in order to qualify for the credit in the next fiscal year.

Analysis: According to the literature that this survey reviewed, one of the major flaws of the NJTC was the degree to which employers were unaware of its existence. In 1978 the Census Bureau conducted a preliminary assessment of the NJTC and found that only 34.4 percent of surveyed firms had heard of the program. Moreover, when it came to the program's implicit goal of encouraging small-business employment, the findings were more discouraging: only 27.3 percent of small firms (zero to nine employees) were aware of the available subsidies, whereas 89.1 percent of large firms (over 500 employees) knew about it.

³³ The employers were required to add the value of the credit back into taxable income by reducing ordinary business expense deductions by the amount of the NJTC claim.

³⁴ The exception was in cases where a firm was expanding so rapidly that it reached the credit limit (\$100,000) on intended hiring increases alone; under these circumstances, the tax incentive would not affect its incremental hiring behaviour even though the firm would receive the credit up to its limit.

³⁵ Perloff and Wachter (1979).

Nonetheless, in some cases where it was applied, the NJTC appeared to have had a positive impact upon the labour market. One study, for example, estimated that the NJTC was responsible for 20 percent to 30 percent of the 1.3 million jobs created in the retailing and construction industries during the 1977-78 period under examination.³⁶ This finding was complemented with the observation that the rate of employment growth in these industries exceeded the rate of output growth by a considerable margin. Although such findings affirm that the program had a favourable employment effect in these particular economic sectors, the models that were constructed to arrive at these estimates failed to consider job displacements in other industries. Hence, the overall level of new jobs created in the economy is difficult to determine.

From a more qualitative perspective, the results of the Census Bureau's NJTC analysis also suggest that the program was successful in creating jobs; it found that the firms that were aware of the NJTC increased employment 3 percentage points faster than other firms.³⁷ However, the conclusion that the program was successful because the firms that were aware of it hired more employees should be made with caution. In particular, it is possible that the rapidly growing firms were directed by effective profit-maximizing managers who made a point of researching all the available subsidies such as the NJTC. Hence, a causal correlation between awareness and employment growth – though intuitively probable – is not certain. Similarly, these findings cannot be used to conclude that these jobs would not have been created in the absence of the subsidy. To the contrary, the Census Bureau survey found that even when firms were fully aware of the program, only 6 percent of them had made a conscious effort to increase employment and 36 percent indicated that their levels of employment growth automatically qualified them for the subsidy.³⁸ These results cast further doubt on the extent of the NJTC's success at increasing overall levels of employment.

But the least favourable analysis of the NJTC was put forth in Robert Tannenwald's 1982 study. He affirms that the NJTC was a highly cost-ineffective program, in the sense that the reduction in wages (and government revenues) resulting from the tax credit failed to act as an effective stimulus for hiring. Specifically, he estimates that new employment was increased by only 0.4 percent for every 10-percent reduction in the after-tax wages stimulated by the NJTC; this figure falls well below the 2-percent increase in jobs that was predicted before the program's inception.³⁹ This estimate of 0.4 percent translates into a high dollar-value cost for the program: the average tax revenue loss per new job created (after adjusting for multiplier and displacement effects)⁴⁰ was estimated to be between \$14,100 and \$17,100 – depending on the assumed displacement rate.⁴¹

³⁶ See Bishop and Haveman (1979).

³⁷ See Perloff and Wachter (1979).

³⁸ 7.2% learned of the credit too late; 5% said that applying for the credit was "too troublesome"; while the remaining firms did not answer the question or gave other reasons.

³⁹ Tannenwald (1982).

⁴⁰ To some extent, employment was reallocated and not displaced.

⁴¹ For reasons pertaining to his methodology, Tannenwald believes that the real values are likely to be somewhat higher than these "overly optimistic" ones.

Essentially, Tannenwald attributes the cost-ineffectiveness of the NJTC to the low response the program received from private-sector employers. The results of his 309-firm survey suggest that there were four major impediments inherent to the NJTC program that made firms reluctant to respond to the tax incentive. First of all, more than half of the respondents stressed that product demand determined hiring levels, not tax credits; there was no need for firms to increase output if no one was going to purchase the products. Second, most of the interviewees indicated that a sharp distinction and lack of communication between the firm's operations and finance departments often prevented human resource managers from knowing about the fiscal incentive for increased hiring. The survey also indicated that employers did not respond to the incentive because the decision to increase employment had to be made before the end of the fiscal year; without knowing their level of taxable income, firms had to hire based on the probability, not the certainty, of receiving the subsidy. Finally, businesses often cited a time lag as a reason for their low response to the program. Often a firm that was willing to increase its payroll in light of the incentive needed more time to make the necessary adjustments (screen employees, build plants, install new capital, etc.) than the length of the program permitted. In these cases, firms knew that expansion that would satisfy the NJTC criteria had to be planned in a longer-run context, but due to the statutory termination date of the program, they would not qualify and, hence, did not apply.

Tannenwald's survey also found that "fewer than 10 percent of all knowledgeable qualifying respondents reported that their work force would have been smaller in the absence of the NJTC."⁴² The finding suggests that even if more firms had known of the program, it is unlikely that many more new jobs would have been created. This counters the notion that a low level of awareness of the program was an imposing obstacle to the NJTC's success.

Still, it is important to note some of the positive conclusions that these studies drew about the NJTC. Perloff and Wachter, for example, concluded that although they prefer traditional monetary and fiscal tools for countering cyclical unemployment, "the estimated impact of the NJTC among knowledgeable firms suggests that a permanent program aimed at increasing the equilibrium employment rate may be practical." Similarly, Robert Solow noted that the positive response to the NJTC among firms that knew about it validates the belief that profit incentives can be used as effective policy tools; therefore, wage subsidies have some advantages over direct job creation programs in terms of efficiency. This, however, is not to say that wage subsidies are cost-effective in terms of foregone revenue; Tannenwald's study suggests the contrary.

No unambiguous final analysis of the NJTC's impact on job creation is possible. This suggests that the use of an employment tax credit will lead to uncertain and difficult-to-measure results. What can be concluded with certainty is that the NJTC program had some significant flaws in theory, design and outcome.

⁴² Tannenwald (1982).

Targeted Jobs Tax Credit (United States)

Purpose: In 1979, the New Jobs Tax Credit program was replaced by the Targeted Jobs Tax Credit program (TJTC), which was specifically designed to enhance the employment opportunities of "disadvantaged workers." In effect, this change reflected a policy shift away from the counter-cyclical concept of subsidizing incremental increases in the overall level of private-sector employment toward one of assisting particular groups of individuals that were experiencing long-run displacement from the job market. Thus, the program could be considered successful in one of two forms: either the subsidy stimulated new jobs that were filled by the targeted workers, or it simply encouraged firms to hire these workers in lieu of non-eligible workers for positions that would have been available regardless of the subsidy. The following five groups were eligible: disabled individuals, welfare recipients, economically disadvantaged youth, Vietnam veterans and ex-offenders. The TJTC was implemented without an explicit restriction on the length of time for which it would be available; in fact, although it is due to expire this year, the program – notwithstanding some minor revisions – has been in place until today. In this sense, it was more of a permanent program than its predecessor, the NJTC.

Design: For the first six years of its existence, the TJTC program offered firms a tax credit equal to one half of the first \$6,000 of wage costs incurred for each "disadvantaged worker" whom the firm had hired in the fiscal year. In the second year the subsidy decreased to one quarter of such costs, and in the third year it was no longer available. Following the 1986 *Tax Reform Act*, the TJTC program was slightly altered so that the subsidy was available for only one year, and the amount was reduced to 40 percent of the first \$6,000 in wage costs per eligible worker added to the firm's work force. The program remains in this form today.

With the exception of the first two years of the program, during which time firms could claim for eligible workers already on the payroll, the procedure required that an employer apply for the subsidy prior to the "disadvantaged worker's" first day on the job. But an application did not guarantee a subsidy, because the government was required to verify that the worker did indeed belong to a targeted group. This system, although necessary for reasons of legitimacy, imposed large administrative and search costs on the firm. Alternatively, firms that were aware of the credit could alert the appropriate employment agency of their interest in hiring a subsidized worker. The agency would then act as a conduit between "disadvantaged workers" and potential employers. The agency could also hand out certified vouchers of subsidization to eligible workers (or the workers could request such vouchers from authorized employment agencies), which could be presented to employers in an interview. But these alternatives were not without notable flaws of their own.

Finally, the TJTC has no provisions for ensuring incremental increases in employment levels. To qualify for the subsidy, the firm is simply required to hire a targeted worker, regardless of whether the position represents a net increase to the payroll. Thus, there was the inherent likelihood that firms would replace existing workers with subsidized ones. The TJTC, it is clearly a recruitment subsidy rather than a marginal employment subsidy.

Analysis: The evidence for the first half of the TJTC's existence indicates that the program did not initially have a major positive impact on the hiring practices of firms with regard to targeted workers. The Congressional Budget Office estimated that during 1983 the TJTC incentive accounted for less than 10 percent of the eligible youth who were hired in that year. It also found that in 1982 the TJTC participating companies accounted for only about 4 percent of the nation's employers and less than 20 percent of the nation's jobs.⁴³ Unlike its predecessor, the NJTC, it is doubtful that increased promotion of the TJTC program would have made much difference to the initial low response to the program; in 1982, a survey recorded that 73 percent of the employers who had some familiarity with the program said that they did not plan to ask for TJTC-eligible referrals when they needed unskilled workers in the future.⁴⁴ Bishop and Kang's overview of the TJTC suggests that the low take-up rates were largely due to the aforementioned administrative costs of hiring targeted workers. From the employer's perspective, applying for the subsidy required not only learning about the program, but also a time-consuming process of researching more personal information (family income sources, criminal records, etc.) about potential employees who did not carry certified vouchers. If, on the other hand, potential employees revealed themselves as eligible for the TJTC in hope of saving the firm research costs or simply making it aware of the program, they ran the risk of being stigmatized as less-productive workers should the employer not be interested in subsidized individuals. Such risks were indeed confirmed by a survey that asked employers who had heard of the NJTC (but not necessarily applied for it) whether they believed the targeted workers "make better or poorer employees than people who are not tax-credit eligible." Only 7 percent said better, while 28 percent said worse (the rest responded with the more socially acceptable "don't know" or "no difference").⁴⁵ Even for firms that requested an interview with subsidized workers, time-consuming elements and stigmatization effects were factors that affected a firm's ultimate response to the program.

In spite of its slow start, the TJTC did gain momentum and by the mid-1980s nearly 700,000 workers were being subsidized by the program. The increased use of the subsidy can be partly attributed to the fact that an increasing portion of firms had already incurred the fixed costs of acquiring the necessary knowledge about the program and potential employees as time passed. Similarly, the stigmatization effect is expected to recede after workers are integrated into the work force.⁴⁶

Although the TJTC was explicitly designed as a recruitment subsidy, its impact on the creation of new jobs is still of interest. A model constructed by Bishop and Montgomery in 1993 estimated that at most the TJTC created three new jobs for every 10 Targeted Jobs Tax Credits granted;⁴⁷ the rest represented some form of substitution. However, as they point out:

⁴³ See Bishop and Kang (1991).

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

⁴⁶ A survey of employers who had hired TJTC-eligible employees revealed that the subsidized workers were viewed as being just as or more productive than others hired for the same job (Bishop and Kang, 1991).

⁴⁷ The lower bound for this estimate was 1.3 new jobs for every 10 credits granted.

Policy makers might be pleased nevertheless if those other seven hirings represent a transfer of jobs from non-targeted workers to targeted ones. But our results prove otherwise.... We are led to conclude that the great majority of claims for tax credits are for workers who would have been hired even in the absence of the subsidy. These are simple transfer payments to the employers.⁴⁸

One final observation about the TJTC concerns its cost. Using program data for 1985, Bishop and Montgomery estimated the cost of creating a job through the tax credit program. They found that at best each new job cost \$5,270 per worker; however, their most pessimistic result (using a different model) indicated that the program cost as much as \$11,581 per new job. They also cited another estimate (by Bassi in 1985) that suggested a cost ranging between \$2,198 and \$5,708. But Bishop and Montgomery believe that the higher limit of their estimate is most likely the closest to the subsidy's true cost.

3. Conclusion

The evaluation of past experience suggests that governments incur considerable losses in tax revenues from tax-related employment programs without certainty over how many new jobs will be created or how much related social expenditures will be reduced. In general, the unreliable nature of these programs can be largely attributed to the following four pitfalls. First, ensuring legitimacy requires some degree of administration; however, compliance costs act as a deterrent to employer participation in any program. Second, making employers fully aware of any employment incentive has proved to be a considerable challenge; extensive advertising campaigns are an option, but without certainty about employer response, they incur considerable risks. Third, it is difficult – if not impossible – to ensure that each claim is legitimately contributing to the program's goal and that the incentive is not being "wasted" on tax advantages that merely represent transfers to firms. Finally, in the case of targeted programs, singling out specific types of workers, although inherently necessary, can result in a stigmatizing effect that will work contrary to the program's goal.

It can also be concluded from the evaluation of past programs that, if the government decides to intervene in the labour market – especially on a permanent basis – targeted employment-stimulating tax policies are generally preferable to that which attempt to decrease unemployment in the economy at large. Although there is no evidence that suggests that such programs are less costly or more efficient, targeted employment tax credits do possess some administrative, economic and political advantages. First of all, it is easier to measure the effects and control the abuse of programs that single out particular types of individuals – such as single mothers, youth or the under-educated – than of programs that broadly attempt to assist anyone who is in search of work. (In particular, defining the basic level of employment for marginal employment incentive programs becomes increasingly problematic as the life of the program increases.) From the economic perspective, by assisting those workers who possess relatively little – if any – bargaining

⁴⁸ Bishop and Montgomery (1993).

power, any inflationary wage impacts are likely to be minimal.⁴⁹ Finally, from the political perspective: any consequential indirect effects may be socially acceptable if they come in the process of helping those who are least able to help themselves.

Although the final analysis still indicates that the efficacy of *any* type of active employment policy is questionable, the use of employment-stimulating tax incentives should not be completely ruled out. Often political considerations override economic realities; despite the costly nature and indefinite outcomes of such incentives, governments are often pressured by voters to take an active role in stifling unacceptably high levels of unemployment. Hence, the evidence that these programs do – to varying degrees – induce firms to take on new employees must not be overlooked. Moreover, the review of the literature indicates that, if a government decides to intervene in the labour market, then tax credits for wages are preferred to direct employment programs:

"[because] profit incentives operate more or less as they are supposed to ... wage subsidies have some advantage over direct job creation according to the efficiency criterion. They are probably also to be preferred according to the equity criterion: they offer at least the possibility of a start in the mainstream labour market, whereas direct job creation at least runs the risk of creating a sort of caste."⁵⁰

The long-run improvements in the skill levels, work motivation and – in turn – employability of subsidized workers must also be weighted against short-term financial costs.

Clearly, there is a trade-off to be made between the potential costs and inefficiencies and the potential employment benefits. Hence, the underlying issue is really to determine at what point the costs per job become too high. This is essentially a value-based subjective decision that must be made by policy makers and the electorate that they represent.

⁴⁹ See Gera (1988), p. 10.

⁵⁰ Solow (1980).

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Summary of Employment-Stimulating Tax Policies

Name of program	Government	Date implemented	Duration	Design	Est. no. of claims	Est. cost per new job	Notable traits	Notable results
Employment Tax Credit Program	Canada	1978	3 years	Marginal employment tax credit equal to \$1.50, \$1.75, or \$2.00 per worker per hour	113,182 over 3 years	\$7,635 (Sask) to \$13,139 (Nfld); av. = \$9,555 (Can)	Rate varied according to regions	Estimated that only 33% of claims were for net new jobs; determined to have a high degree of net social value
PAIE (<i>Programme d'aide à l'intégration en emploi</i>)	Quebec	1990	Still available	Targeted-recruitment subsidy for long time welfare recipients; equal to maximum of \$160 per worker per week in private sector and \$204.75 in public sector	N/A	N/A	Direct government subsidy not administered through the tax system; included provisions to prevent substitution of existing workers with subsidized ones	Generally successful at integrating workers into the work force, but only marginal improvements in long-run employability of participants
New Jobs Tax Credit	United States	1977	2 years	Marginal employment tax credit=50% of excess wages over 105% of previous year's total wage or 50% of employer's increase in FUTA cost over 102% of previous year's FUTA costs	N/A	\$14,100 to \$17,100	Inherent provisions to prevent substitution effect; restricted to 2 years in order to prevent saw-tooth pattern and average cyclical effect	Low level of firm awareness; poor effect on new employment (estimated 0.4% increase in new jobs for every 10% reduction in wages resulting from tax credit)

Summary of Employment-Stimulating Tax Policies (Cont'd)

Name of program	Government	Date implemented	Duration	Design	Est. no. of claims	Est. cost per new job	Notable traits	Notable results
Targeted Jobs Tax Credit	United States	1979	Expires 1996	Targeted-recruitment tax credit for "disadvantaged worker" = one half of the first \$6,000 in wage costs incurred by each additional eligible worker, down to one quarter of such costs in second year*	Nearly 700,000/year by mid-1980s	\$2,198 to \$11,581 in 1985	No provisions for ensuring incremental increases in employment	High initial non-pecuniary costs led to an initially slow employer response to the program; stigmatization of participants was also a deterrent; majority of claims were made for workers who would have been hired even in the absence of subsidies; estimated only 3 new jobs for every 10 claims
Co-operative Education Tax Credit	Ontario	1996	No time limit has been set	Targeted-marginal tax credit for Ontario-based firms that provide work terms to Ontario students; allows for a deduction from taxes of 10% of the costs incurred by the firm for hiring a co-op student	N/A	N/A	No explicit protection against substitution of existing workers with subsidized ones	N/A

* Revised in 1986 to 40% of such costs for only one year.

Summary of Employment-Stimulating Tax Policies (Cont'd)

Name of program	Government	Date implemented	Duration	Design	Est. no. of claims	Est. cost per new job	Notable traits	Notable results
Small Business Unemployment Insurance Premium Relief Program	Canada	1992	1 year	An employment subsidy designed to encourage new hirings in small businesses; froze 1993 employee UI premiums to the amount paid in 1992	N/A	N/A	Essentially a payroll tax cut specifically for small businesses; new businesses started in 1993 were subjected to no UI premiums in 1993	Low level of firm response despite aggressive marketing tactics (actual total costs were about half of what were expected; poor channels of communication between firms' accountants and their human resources)
WIN-Welfare Tax Credit Program	United States	1971	Permanent (at least 5 years but exact expiry date unknown)	Targeted-recruitment tax credit for firms who hired AFDC (welfare) recipients enrolled in WIN program; 20% credit per worker; rate dropped to 10% after a firm's total claimed credit reached \$25,000; after 1975 program extended to all AFDC recipients and \$25,000 limit extended to \$50,000	88,000 between 1973 and 1975 (25,000 in 1973)	N/A (est. cost per claim in 1973 = \$360)	Originally the firm was required to keep the worker for 2 years, but this was reduced to 90 days in 1975	Employers were reluctant to respond due to administrative costs and stigmatization; program was substantially under-utilized; estimated that 90% of all workers hired would have been hired even in the absence of the credit; positive effect on lowering welfare costs; 53¢ in lost revenue for \$1 saved in welfare costs

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

Mr. Robert Brown
Price Waterhouse
Toronto, Ontario

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Stewart McKelvey Stirling Scales
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Mr. Wilfrid Lefebvre
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University of Toronto (on leave)
Clifford Clark Visiting Economist
Department of Finance
Ottawa, Ontario

Mr. Norm Promislow
Buchwald Asper Gallagher Henteleff
Winnipeg, Manitoba

The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

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Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States
Brian Arnold (Goodman Phillips & Vineberg)
Jinyan Li and David Sandler (University of Western Ontario)
- ☐ **WORKING PAPER 96-2**
Why Tax Corporations
Richard Bird (University of Toronto)
- ☒ **WORKING PAPER 96-3**
Tax Policy and Job Creation: Specific Employment Incentive Programs
Ben Cherniavsky (Technical Committee Research Analyst)
- ☐ **WORKING PAPER 96-4**
The Effects of Taxation on U.S. Multinationals and Their Canadian Affiliates
Jason Cummins (New York University)
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The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments
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Publications

The Effects of Taxation on U.S. Multinationals and Their Canadian Affiliates

Jason G. Cummins
New York University

December 1996

WORKING PAPER 96-4

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

The Effects of Taxation on U.S. Multinationals and their Canadian Affiliates

Jason G. Cummins
New York University

December 1996

WORKING PAPER 96-4

Prepared for the
Technical Committee on Business Taxation

Comments on the working papers are invited and may be sent to:

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Abstract

I develop an empirical approach that provides a general framework for studying the behavior of multinational corporations (MNCs). The approach begins with a dynamic structural model of the multinational firm. The model treats the MNC's factors of production in different countries as separate inputs into a general production technology and incorporates unobservable firm-specific productivity shocks and local demand shocks. The semiparametric econometric procedure I develop to estimate the model relies on the exit rule and input demand functions generated by the solution to the firm's stochastic dynamic decision problem to consistently estimate the parameters of the firm's production technology. I then estimate the technology parameters using a new firm-level panel dataset on U.S. MNCs and their Canadian affiliates.

I find that U.S. MNCs are able to substitute factor inputs between the parent and their Canadian affiliates rather easily, except parent and Canadian affiliate labour where the evidence is mixed. The elasticity estimates suggest three findings. First, outsourcing may be an important contributor to the U.S. wage gap between more-skilled and less-skilled workers, not because Canadian labour displaces the domestic parent's labour, but because Canadian capital does. Second, in contrast to a large empirical literature that finds fixed capital is immobile at the macroeconomic level, my results show that U.S. and Canadian fixed capital are relatively easy substitutes at the firm level. This implies that capital income taxes on MNCs are largely shifted and result in substantial efficiency costs. Specifically, an increase in capital taxation that leads to a 10-percent increase in the relative price of domestic capital would lead to at least a 10-percent decrease in the steady-state ratio of U.S. to Canadian capital. This level of substitution suggests that each country may face increasing pressure on corporate tax revenues, as companies shift production to the lower tax country. Third, taken as a whole, the estimates suggest that business taxation results in substantial efficiency losses. Thus when national governments formulate tax policy, they should specially tailor it to differences in countries' characteristics and taxation policies.

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After producing 20 million sticks of chewing gum a day at the same California plant for more than 40 years, one might assume that Wm. Wrigley Jr. Co. was stuck on Santa Cruz. Wrong.

Last week the Chicago-based gum Goliath announced it would shut its Santa Cruz plant, eliminating 311 local jobs over the next year. It will make up the slack at its two other U.S. factories. Wrigley separately announced that on Monday it will break ground on a new \$25-million factory in St. Petersburg (Russia, not Florida).

The company says the economics of producing in Santa Cruz no longer made sense. With slower growth in the West and faster production and wrapping machinery, the local plant has been operating at less than 60-percent capacity. Increasing production would have...[been] too costly.

San Francisco Chronicle, April 30, 1996.

Multinational corporations (MNCs), such as Wrigley, are continually evaluating where and how to allocate factors of production like capital and labour to service domestic and international markets. This process is inherently dynamic. Firm decisions – like closing old plants, opening new ones, and changing production and investment in existing plants – are made in response to changes in local prices and demand, and to productivity. National governments face the problem of how to best design tax policy under these circumstances. Optimal tax theory says that tax policy should minimize efficiency loss, which depends on the degree to which MNCs can substitute among inputs located in different countries. If domestic and foreign inputs can be substituted for one another fairly easily by the firm, then taxes on MNCs in one jurisdiction can lead the firm to relocate production. This protects the relatively mobile factors of production from taxation, but shifts the incidence to the relatively immobile factors, resulting in substantial efficiency costs.

The key issue, then, is how easy it is to substitute among inputs in different countries. The theoretical literature on open economy capital-income taxation offers little guidance on this. In fact, the standard assumptions are that fixed capital is internationally mobile, labour is immobile, and countries are price takers in the world market for capital. Under these assumptions, optimal tax theory suggests that there should be no capital-income taxation at all, because it will prompt MNCs to move abroad in response to even the smallest tax increase. However, all developed countries impose capital-income taxes. An explanation for this observation may simply be that capital is immobile internationally.

The empirical literature on capital mobility begins with Feldstein and Horioka (1980), who first documented that there is a nearly one-for-one correlation between changes in domestic aggregate fixed investment and national saving. In other words, countries with low savings rates apparently do not make up for the low savings by acquiring capital from abroad. One explanation is that domestic investment is essentially constrained by domestic savings; that is, investors do not borrow from abroad. Many subsequent studies have demonstrated the robustness of this finding by replicating, extending and refining it. The weight of empirical evidence continues to suggest that capital-investment decisions depend on domestic fundamentals. This seems to contradict the empirical evidence that international interest rates are closely linked (see, for example, Obstfeld 1986; Frankel 1993). However, despite years of research, the literature has not neared a consensus on an explanation of this seeming contradiction (see, for example, the survey in Obstfeld 1993).

While the institutional structure of capital-income taxation and the existing empirical literature support the view that fixed capital and labour are immobile among countries, Wrigley is just one example of a large and growing number of MNCs that have succeeded in locating capital and labour in different places and moving them among many different countries. The popular press and policy-makers in the United States and other industrialized countries frequently argue that MNCs move fixed capital and jobs abroad (Ross Perot's "giant sucking sound") in order to take advantage of lower wages, lower costs of capital and less stringent regulations.

How can the view that capital is immobile be justified given this casual empiricism? The standard approach is of limited assistance, since it defines the firm as a plant that produces one good in one location. Multi-plant firms are either excluded from the analysis or production decisions among the plants are assumed to be independent (island plants). In this setup, multinationals can only gain access to a foreign market by producing in it. Since production depends only on the anticipated output demand in the host country, domestic and foreign-investment decisions are separable. As a result, when national governments formulate capital-income tax policy, they have little incentive to take account of the characteristics and policies of other countries. Alternatively, if MNCs overcome trade barriers gradually (e.g. due to regulation or asymmetric information), they may gain significant production and tax benefits by, for example, substituting foreign for

domestic capital. If so, mobile investment could significantly erode any country's ability to impose capital-income taxes. As a result, when national governments formulate capital-income taxation policy, they would have to tailor policy to differences in countries' characteristics and taxation policies. Evaluation of these opposing viewpoints depends on MNCs' ability to substitute among inputs at home and abroad. Existing empirical research cannot address this important question, because it has focussed on reduced-form correlations of aggregate variables (see, for example, Feldstein 1983, 1995; Dooley, Frankel and Mathieson 1987; Tesar 1991; Stevens and Lipsey 1992; Ghosh 1995).

In this paper, I present a dynamic structural model of the multinational firm that allows me to directly estimate the degree of substitutability among MNCs' factor inputs. The key feature of the model is its generality. The firm's stochastic dynamic decision problem treats factors in different countries as different inputs to production. When firms choose these inputs, they observe both their firm-specific productivity and a demand shock, but the applied researcher observes neither. Productivity is allowed to be a serially correlated state variable in the firm's decision problem, and the demand shock is observed each period in both the source and host countries. I do not explicitly solve the firm's decision problem. Instead, I use the exit rule and input demand functions generated by the solution to estimate the parameters of the firm's production technology. The exit rule is used to correct for selection bias in the data, and input demand functions are inverted so that the unobservable variables are expressed in terms of the observables. The advantage of this approach is that I consistently estimate the technological relationship among output and inputs without trying to directly solve the firm's dynamic decision problem in the presence of serially correlated unobservables.

Unobservable (to the econometrician) serially correlated state variables complicate estimation in two ways. First, more variable inputs are more highly correlated with the current realization of the productivity shock; and second, input demands are endogenous because they are determined in part by the firm's expectations about the realizations of the productivity shock when those inputs will be used (in other words, inputs in place will be correlated with the current realization of the productivity shock, and this will generate a simultaneous equation bias). Hence, standard econometric techniques provide biased estimates of the input demand and production parameters.

In order to obtain unbiased parameter estimates of the key structural parameters, I extend the estimation procedure developed by Pakes (1994) and Olley and Pakes (1996). I estimate the model using a new firm-level panel dataset constructed from several sources, which provide information on country-specific domestic and foreign capital, labour and sales for more than 100 U.S. multinationals and their Canadian subsidiaries for the period 1980 through 1994, as well as the relevant price and tax variables.

The estimates of the technology parameters of U.S. MNCs and their Canadian affiliates shed considerable new light on the behaviour of these firms in particular, and on international fixed capital and labour flows. For the first time in the literature, I present estimates of firm-level substitutability of domestic and foreign capital, and provide new evidence on the own- and cross-elasticities of substitution of domestic and foreign labour for other inputs. The estimates provide a structural basis for evaluating different tax-policy proposals, and for assessing the numerous proposed explanations for the nearly one-for-one correlation of domestic aggregate fixed investment and national saving.

The paper is organized as follows. Section 1 describes the theoretical model. Section 2 presents the econometric procedure in detail. Section 3 describes the dataset. Section 4 discusses the estimation results, and the final section presents conclusions.

1. Theoretical Model

The model has four key features needed to study MNCs. First, it is dynamic and explicitly incorporates firm-specific productivity and local-demand shocks. Second, it allows for non-randomly missing data and firm exit.¹ Third, it combines the firm's dynamic decision problem with a general production technology with a constant, but not necessarily unitary, elasticity of substitution between factors. Finally, it includes multiple capital stocks and labour inputs indexed by the country in which the firm locates production.

I assume the MNC produces output Y using vectors of capital \mathbf{K} and labour \mathbf{L} inputs, indexed by country of location (with domestic labour and capital defined as L^d and K^d , respectively, and foreign labour and capital defined $L^f = \sum L_n$ and $K^f = \sum K_n$ where n is the number of foreign countries for which the firm reports operations). Labour is costlessly adjustable, and the cost of capital is \mathbf{p} , also indexed by country of location.

There are three log-additively separable structural disturbances in the model. First, the firm (but not the econometrician) observes a non-negative mean-one multiplicative index of its productivity ω against which it optimizes. The variable ω is a stochastic disturbance to the firm's production process with a known distribution that is serially correlated over time, and independently and identically distributed (iid) across firms. This setup is general enough so that an alternative formulation could allow each firm to have a distinct ω indexed by country, provided that the different productivity shocks enter the production technology log-additively. Second, the firm (but not the econometrician) observes a non-negative mean-one multiplicative vector of demand shocks η , indexed by year and country, against which it optimizes. The variable η is a stochastic disturbance to the firm's production process with a known distribution that is iid over time and across countries. Finally, I introduce a non-negative multiplicative mean-one random disturbance ε to represent measurement error.² The firm's production function is thus defined

¹ It would be an interesting extension to model both entry and exit jointly. However, this task is left for future research because the data do not detail the characteristics of the firms' actual and potential locations.

² Alternatively, one can think of ε as optimization error, which allows the firm's first-order conditions to only be satisfied in expectation (from the perspective of the econometrician), or as a shock to productivity realized after input decisions that are iid over time and across firms.

$Y = F(\mathbf{K}, \mathbf{L}, \omega, \eta, \varepsilon | \alpha)$, where α is a parameter vector describing the technical coefficients of production. The goal of the econometric procedure is to estimate this parameter vector.

I assume the firm produces a homogeneous product with general production technology that can be approximated by a translog function. I assume the translog because it is a flexible functional form that provides a second-order approximation to any arbitrary continuous twice-differentiable production function, and it allows for non-unitary substitutability between inputs. Finally, I assume that profitability differences across firms result from Hicks-neutral technical change (HNTC).³

Since I study production, I model total output as a composite function of all of the MNCs' inputs, domestic *and* foreign. This means that inputs that are separated spatially are included in a single production technology. This general composite formulation nests the standard approach that treats domestic and foreign production processes independently (island plants). Recall that the standard approach represents factor inputs that are separated spatially by altogether separate production functions. In my general framework, the hypothesis that spatially separated processes are separable is testable. The composite production technology could approximate a function that is the sum of two spatially separable production processes – and one could find empirically using my approach that the input cross effects are zero, as would be the case if local production's sole purpose is to meet local demand. Thus, the framework does not impose or preclude any level of input substitutability.

While the test statistics overwhelmingly reject the restrictions imposed by the standard approach, I do not adopt this approach to the exclusion of alternatives. I also examine spatial separability by specifying separate production functions for each country, where sales in each country are solely a function of inputs in that country. Estimates of these models yield highly implausible and unstable parameter estimates.

If the standard view is rejected, then an alternative is the general model, where MNCs can increase input demand in markets where factor prices have declined and decrease it in markets

³ In future research, I plan to consider how the estimates would be affected by relaxing the assumptions of HNTC.

where factor prices have risen, but they do not necessarily fully replace production in one market with production in another whenever factor prices vary. The composite production technology may reflect comparative advantage, as might be the case if firms perform some fraction of production in one country and the remaining in another. In this view, substitution reflects the transfer of production tasks among countries as factor prices change. Alternatively, if the firm's plants are self-contained, then inputs may be spatially correlated because firms change production (or at least want to maintain the option to do so) in a given country when factor prices, productivity, demand or exchange rates change.

The firm begins each period t by deciding whether to exit or continue operations for another period.⁴ If the firm exits, it receives some liquidation value Ψ . If not, the firm chooses labour input and realizes profits, conditional on the beginning-of-period values of the state variables, capital \mathbf{K} , the cost of capital \mathbf{p} , firm efficiency ω , and demand conditions η . Let the profit function be $\pi_t(\mathbf{K}_t, \mathbf{p}_t, \eta_t, \omega_t)$ ($\pi_K > 0$, $\pi_{KK} < 0$). As in Ericson and Pakes (1995) the profit function also depends on market structure – as does the value function presented below. Since the market structure is assumed identical across firms in a given period but not between periods, without loss of generality, it is omitted from the notation and the profit (and value) function are instead indexed by time.

The cost of capital is observable to both the firm and the econometrician. Demand evolves according to an exogenous process that is iid across time and countries. Productivity ω evolves according to an exogenous Markov process. The distribution of ω_{t+1} is given by the family of functions

$$f_{\omega} = \{f(\cdot|\omega), \omega \in \Omega\}. \quad (1)$$

At the end of the period, the firm chooses a vector of investment \mathbf{I} and the capital stock \mathbf{K} depreciates at a fixed geometric rate δ , so the capital stock next period is:

$$\mathbf{K}_{t+1} = \mathbf{K}_t(1 - \delta) + \mathbf{I}_t. \quad (2)$$

⁴ The firm index i is suppressed for notational convenience.

The firm is assumed to be risk-neutral and to maximize the expected present discounted value of future net profits. The Bellman equation for the firm is thus:

$$V_t(\mathbf{K}_t, \mathbf{p}_t, \eta_t, \omega_t) = \max_{\mathbf{I}_t} \left\{ \psi_t \sup \{ \pi_t(\mathbf{K}_t, \mathbf{p}_t, \eta_t, \omega_t) - C(\mathbf{I}_t, \mathbf{K}_t) \right. \\ \left. + \beta_t E [V_{t+1}(\mathbf{K}_{t+1}, \mathbf{p}_{t+1}, \eta_{t+1}, \omega_{t+1}) | \Theta_t] \right\} \quad (3)$$

where E is the expectations operator; β_t is the time t discount factor; $C(\mathbf{I}_t, \mathbf{K}_t)$ is the real cost of adjusting the capital stock ($C_I > 0$, $C_{II} > 0$, $C_K < 0$, $C_{KK} < 0$) and Θ_t is the time t information set. Equation (3) says that the firm compares its liquidation value to the expected discounted revenue for continuing operations for another period. If the values of the state variables make continuing operations profitable compared to liquidation, the firm chooses an optimal level of gross investment.

The general solution to this value function is very complicated to evaluate. But the exit rule and investment demand function generated by the solution can be used to obtain econometric estimates of the structural parameters of the firm's production technology. Define the indicator function u_t for entry and exit as:

$$u_t = \begin{cases} 1 & \text{if } s_t \geq \underline{\omega}_t(\mathbf{K}_t, \mathbf{p}_t) \\ 0 & \text{otherwise,} \end{cases} \quad (4)$$

where $s_t = \omega_t + \eta_t$ is unobservable; and $\underline{\omega}$ is the critical value determining exit. Note that since $V(\mathbf{K}_t, \mathbf{p}_t, \eta_t, \omega_t)$ is increasing in \mathbf{K} , $\underline{\omega}_t(\mathbf{K}_t, \mathbf{p}_t)$ is decreasing in \mathbf{K} .

Define the investment demand function as:

$$\mathbf{I}_t = \mathbf{I}_t(\mathbf{K}_t, \mathbf{p}_t, \eta_t, \omega_t). \quad (5)$$

Assume $\mathbf{I}_\omega(\mathbf{K}_t, \mathbf{p}_t, \eta_t, \omega_t) > 0$. The critical value in the exit rule $\underline{\omega}_t$ and the investment demand function \mathbf{I}_t are functions of time because they are determined as part of the equilibrium market structure.

Using the assumptions $E(\eta_t, \eta_{t-1}) = 1$ and $E(\eta_t | \mathbf{K}_t, \mathbf{p}_t, \omega_t) = 1$, equation (5) can be rewritten without the demand shock η_t :

$$\mathbf{I}_t = \mathbf{I}(\mathbf{K}_t, \mathbf{p}_t, \omega_t). \quad (6)$$

Equation (6) says that investment demand is unaffected by the demand shock because, by assumption, η_t provides no information about future demand conditions or the fundamentals that affect the marginal revenue product of capital. Demand shocks then only affect the vector of labour input since it is the costlessly variable factor.

Given the assumptions of HNTC and log-additive separability of the stochastic disturbances to production, the translog function I use to approximate the general production technology is expressed as:

$$\begin{aligned} y_t = & \alpha_0 + \alpha_1 l_t^d + \alpha_2 l_t^f + \alpha_3 k_t^d + \alpha_4 k_t^f \\ & + \frac{1}{2} [\alpha_{11} l_t^d l_t^d + \alpha_{22} l_t^f l_t^f + \alpha_{33} k_t^d k_t^d + \alpha_{44} k_t^f k_t^f] \\ & + \alpha_{12} l_t^d l_t^f + \alpha_{13} l_t^d k_t^d + \alpha_{14} l_t^d k_t^f + \alpha_{23} l_t^f k_t^d + \alpha_{24} l_t^f k_t^f + \alpha_{34} k_t^d k_t^f \\ & + \eta_t + \omega_t + \varepsilon_t, \end{aligned} \quad (7)$$

where lower-case letters represent the logarithms of variables (including η , ω and ε).

2. Econometric Estimation

In this section I describe the econometric procedure, beginning with an overview. The standard approach in the empirical industrial organization literature is to estimate the system of factor-share equations derived from the cost function dual to the production function. This approach would not take advantage of the rich firm-level variation in my panel data, since some of the price data are only available by country. As an alternative, I employ a newly developed three-step econometric procedure that accounts for the well-known biases resulting from estimation of production functions.

The first step is a semiparametric estimator of equation (7) that uses a non-parametric series estimator to obtain parametric coefficient estimates on the labour inputs. Since the distribution of the unobserved state variable ω is truncated by exit, the second and third steps implement a semiparametric version of a sample selection model. The second step estimates the selection mechanism.⁵ The third step uses nonlinear least squares to fit a nonparametric series to the selection correction and the estimated productivity index and obtain parametric estimates of the remaining structural parameters.

There are two problems in consistently estimating equation (7). First, simultaneous equation bias results from the correlation of inputs in place with current ω . This occurs because current input choices are a function of expected future realizations of the unobserved (from the perspective of the econometrician) serially correlated state variable ω . Any econometric procedure that fails to account for the endogeneity will yield upwardly biased estimates of the input coefficients. The bias will be most severe for the more variable inputs \mathbf{L} , because they are more highly correlated with current realizations of ω . Moreover, the variable inputs are potentially correlated with η as well.

⁵ In addition to true exit, the dataset likely contains non-randomly missing data since firms can choose how they report their accounting data. The econometric approach potentially offers a way to control for this type of selection as well. See section 3 for a discussion.

Second, selection bias results from the fact that exit truncates the observed distribution of s as a function of the production inputs. This generates an omitted variable:

$$E[s_t | \mathbf{k}_t, \mathbf{l}_t, \omega_{t-1}, l_t = 1]$$

in the conditional expectation:

$$E[y_t | \mathbf{k}_t, \mathbf{l}_t, \omega_{t-1}, l_t = 1]$$

If $\omega_t(\mathbf{k}, \mathbf{p})$ is decreasing in \mathbf{k} , firms with larger capital stocks would expect larger future profits for any given s , so they would continue in operation for lower realizations of s , selection bias will cause the conditional expectation of s_t to be decreasing in \mathbf{k} . Any econometric procedure that fails to account for this omitted variable will yield downwardly biased estimates of the capital coefficients.

I adapt the procedure Olley and Pakes (1996) introduced to address the two problems discussed above. The derivation builds on theirs with three extensions: I consider a more general production technology; allow for vectors of capital and labour inputs; and generalize the selection mechanism. The procedure provides consistent estimates of the coefficients of equation (7) by expressing the unobservable state variable in terms of the observable variables and the unobservable η in terms of year and country effects. Provided $\mathbf{i}_t > 0$, equation (6), the investment demand function, is invertible for the observables $(\mathbf{i}_t, \mathbf{k}_t, \mathbf{p}_t)$ and can be expressed as:

$$\omega_t = g_t(\mathbf{i}_t, \mathbf{k}_t, \mathbf{p}_t). \quad (8)$$

Substitute equation (8) into equation (7) to yield:

$$\begin{aligned} y_t = & \alpha_1 l_t^d + \alpha_2 l_t^f + \frac{1}{2} [\alpha_{11} l_t^d l_t^d + \alpha_{22} l_t^f l_t^f] \\ & + \alpha_{12} l_t^d l_t^f + \alpha_{13} l_t^d k_t^d + \alpha_{14} l_t^d k_t^f + \alpha_{23} l_t^f k_t^d + \alpha_{24} l_t^f k_t^f \\ & + h_t(\mathbf{i}_t, \mathbf{k}_t) + \eta_t + \varepsilon_t. \end{aligned} \quad (9)$$

where

$$h_t(\mathbf{i}_t, \mathbf{k}_t) = \alpha_0 + \alpha_3 k_t^d + \alpha_4 k_t^f + \frac{1}{2} \left[\alpha_{33} k_t^d k_t^d + \alpha_{44} k_t^f k_t^f \right] + \alpha_{34} k_t^d k_t^f + g_t(\mathbf{i}_t, \mathbf{k}_t, \mathbf{p}_t). \quad (10)$$

In the first step, I estimate equation (9) semiparametrically by projecting y_t on the functions of domestic and foreign labour inputs, year and country indicator variables with interactions as regressors for η_t , and a fourth-order polynomial series in $(\mathbf{i}_t, \mathbf{k}_t, \mathbf{p}_t)$ as regressors for h_t . This step provides consistent estimates of the coefficients on labour inputs (see Olley and Pakes 1996, Robinson 1988 and Newey 1995 for additional details).

The second step estimates the selection mechanism for the model where the probability of survival is:

$$\begin{aligned} P\left[l_{t+1} = 1 | \underline{\omega}_{t+1}(\mathbf{k}_{t+1}, \mathbf{p}_{t+1}), \Theta_t\right] &= P\left[s_{t+1} \geq \underline{\omega}_{t+1}(\mathbf{k}_{t+1}, \mathbf{p}_{t+1}) | \underline{\omega}_{t+1}(\mathbf{k}_{t+1}, \mathbf{p}_{t+1}), \omega_t\right] \\ &= f_t\left[\underline{\omega}_{t+1}(\mathbf{k}_{t+1}, \mathbf{p}_{t+1}), \omega_t\right] \\ &= f_t(\mathbf{i}_t, \mathbf{k}_t, \mathbf{p}_t) \\ &\equiv P_t. \end{aligned} \quad (11)$$

where P is the probability operator and P is the selection probability or, using the language of Rosenbaum and Rubin (1993), the propensity score. The second equality follows from equation (1) and the third follows from equations (2) and (8). I estimate this probability using a fourth-order polynomial series in $(\mathbf{i}_t, \mathbf{k}_t, \mathbf{p}_t)$ as regressors.

For the final step, consider the expectation of y_{t+1} , given the estimates in the first step and conditional on survival:

$$\begin{aligned}
 & E[y_{t+1} - \hat{\alpha}_1 l_{t+1}^d - \hat{\alpha}_2 l_{t+1}^f - \frac{1}{2} [\hat{\alpha}_{11} l_{t+1}^d l_{t+1}^d - \hat{\alpha}_{22} l_{t+1}^f l_{t+1}^f] - \hat{\alpha}_{12} l_{t+1}^d l_{t+1}^f \\
 & - \hat{\alpha}_{13} l_{t+1}^d k_{t+1}^d - \hat{\alpha}_{14} l_{t+1}^d k_{t+1}^f - \hat{\alpha}_{23} l_{t+1}^f k_{t+1}^d - \hat{\alpha}_{24} l_{t+1}^f k_{t+1}^f | \mathbf{k}_{t+1}, \mathbf{l}_{t+1} = 1] \\
 & = \alpha_0 + \alpha_3 k_{t+1}^d + \alpha_4 k_{t+1}^f + \frac{1}{2} [\alpha_{33} k_{t+1}^d k_{t+1}^d + \alpha_{44} k_{t+1}^f k_{t+1}^f] + \alpha_{34} k_{t+1}^d k_{t+1}^f \\
 & + \varepsilon_{t+1} + E[s_{t+1} | \omega_t, \mathbf{l}_{t+1} = 1] \\
 & = \alpha_0 + \alpha_3 k_{t+1}^d + \alpha_4 k_{t+1}^f + \frac{1}{2} [\alpha_{33} k_{t+1}^d k_{t+1}^d + \alpha_{44} k_{t+1}^f k_{t+1}^f] + \alpha_{34} k_{t+1}^d k_{t+1}^f \\
 & + \varepsilon_{t+1} + \int \underline{\omega}_{t+1} \omega_{t+1} \frac{f(\underline{\omega}_{t+1} | \omega_t)}{\int \underline{\omega}_{t+1} f(\underline{\omega}_{t+1} | \omega_t)} \\
 & = \alpha_0 + \alpha_3 k_{t+1}^d + \alpha_4 k_{t+1}^f + \frac{1}{2} [\alpha_{33} k_{t+1}^d k_{t+1}^d + \alpha_{44} k_{t+1}^f k_{t+1}^f] + \alpha_{34} k_{t+1}^d k_{t+1}^f \\
 & + \varepsilon_{t+1} + k(\underline{\omega}_{t+1}, \omega_t).
 \end{aligned} \tag{12}$$

The last term in equation (12) expresses the selection bias in terms of two unobservable indexes $\underline{\omega}_{t+1}$ and ω_t . In order to control for the bias, the unobservables must be re-expressed in terms of observables. The selection equation in (11) can be inverted to express $\underline{\omega}_{t+1}$ as a function of P_t and ω_t . For fixed parameter values, h_t in (10) can be rearranged to express ω_t as a function of observables:

$$\omega_t = h_t(\mathbf{i}_t, \mathbf{k}_t) - \alpha_3 k_t^d - \alpha_4 k_t^f - \frac{1}{2} [\alpha_{33} k_t^d k_t^d - \alpha_{44} k_t^f k_t^f] - \alpha_{34} k_t^d k_t^f. \tag{13}$$

Using these two results:

$$\begin{aligned}
 k(\underline{\omega}_{t+1}, \omega_t) = & \\
 k \left\{ f^{-1} \left[P_t, h_t - \alpha_3 k_t^d - \alpha_4 k_t^f - \frac{1}{2} \left(\alpha_{33} k_t^d k_t^d - \alpha_{44} k_t^f k_t^f \right) - \alpha_{34} k_t^d k_t^f \right], \right. & \\
 h_t - \alpha_3 k_t^d - \alpha_4 k_t^f - \frac{1}{2} \left(\alpha_{33} k_t^d k_t^d - \alpha_{44} k_t^f k_t^f \right) - \alpha_{34} k_t^d k_t^f \Big\} & \\
 \equiv k_t(P_t, g_t). &
 \end{aligned} \tag{14}$$

The equation estimated in the last step is derived by substituting equation (14) into (12):

$$\begin{aligned}
 y_{t+1} - \hat{\alpha}_{11} l_{t+1}^d - \hat{\alpha}_{21} l_{t+1}^f - \frac{1}{2} \left[\hat{\alpha}_{11} l_{t+1}^d l_{t+1}^d - \hat{\alpha}_{22} l_{t+1}^f l_{t+1}^f \right] - \hat{\alpha}_{12} l_{t+1}^d l_{t+1}^f & \\
 - \hat{\alpha}_{13} l_{t+1}^d k_{t+1}^d + \hat{\alpha}_{14} l_{t+1}^d k_{t+1}^f - \hat{\alpha}_{23} l_{t+1}^f k_{t+1}^d - \hat{\alpha}_{24} l_{t+1}^f k_{t+1}^f \Big] & \\
 = \alpha_0 + \alpha_3 k_{t+1}^d + \alpha_4 k_{t+1}^f + \frac{1}{2} \left[\alpha_{33} k_{t+1}^d k_{t+1}^d + \alpha_{44} k_{t+1}^f k_{t+1}^f \right] + \alpha_{34} k_{t+1}^d k_{t+1}^f & \\
 + \sum_{i=0}^4 \sum_{j=0}^{4-i} \gamma_{ij} \hat{P}_t^i \hat{g}_t^j + \varepsilon_{t+1} + v_{t+1}. &
 \end{aligned} \tag{15}$$

where $v_{t+1} = s_{t+1} - E[s_{t+1} | \omega_t, v_{t+1} = 1]$ is the innovation in s_{t+1} .

In order to clarify the relationship among v_{t+1} and the factor inputs, recall that domestic and foreign capital stocks are known at the beginning of the period because they are assumed to be quasi-fixed and v_{t+1} is mean independent of all variables known at the beginning of the period. Thus, v_{t+1} is mean independent of the period $t+1$ domestic and foreign capital stocks. But domestic and foreign labour demand can adjust in response to realizations in v_{t+1} since they are assumed to be variable inputs. This endogeneity of variable inputs is why it is necessary to use a semiparametric estimator in the first stage.

Nonlinear least squares is used to estimate equation (15). This is also a semiparametric estimator that uses a fourth-order polynomial series in (P_t, g_t) as regressors to nonparametrically approximate k in equation (14). In the results presented, I will refer to the results from the three-step procedure generically as the "semiparametric" estimator.

3. Data

I estimate the model using a new firm-level panel dataset constructed from several sources. The dataset reports firm capital expenditures, tangible fixed assets, depreciation, operating income, employees and sales by country, as well as the relevant price and tax variables for the period 1980 through 1994. The multinational firms' domestic data are from Compustat supplemented by Global Vantage (for a detailed description see Cummins and Hubbard 1995). The foreign affiliates' data are from the Compustat Geographic Segment file. I describe this dataset in some detail for two reasons. First, it is relatively unfamiliar. Second, there is more than the usual latitude in data reporting requirements, which may result in non-randomly missing data and additional measurement error.

Approximately 6,500 companies (of which about 1,000 are non-U.S.-incorporated) report data on their foreign operations, segregated by geographic area. Both U.S.- and foreign-incorporated firms report capital expenditures, tangible fixed assets, operating income, depreciation and sales. Up to four geographic regions are reported for seven years at a time. I combine three seven-year panels to obtain a dataset extending from 1980 to 1994. There is no requirement by either the Financial Accounting Standards Board (FASB) or the Securities and Exchange Commission (SEC) regarding the groupings for geographic areas. As a result, the degree of specificity between company reports varies. For example, consider two companies operating in the same countries. Company A might report four different geographic areas: France, Germany, Canada and Asia, while Company B reports two: France and Europe, and "other foreign."

The accounting literature stresses that considerable caution should be exercised in making inferences about data reported for regions and for groups of countries (see, for example, Pointer and Douppnik 1993). No conclusions about their relative importance can be made from the data. Consider Company B again. Since it aggregates Brazil into South America, there is no way to separate its foreign operations into specific countries, or to separate its South American operations from those in the United States. Fortunately, about 15 percent of the firms in the sample separately report activities in the United States and in at least one other country (what is called the "country sample"). The sample chosen consists of the U.S. parents and their Canadian subsidiaries in the country sample.

Since firms may choose the level of aggregation at which to report their geographic segment data, those that report by country are perhaps materially different from those that report more coarsely. In other words, the smaller country-specific sample is not necessarily a random sample of the larger one, as a result of "reporting exit," as contrasted with true exit. Studies in the accounting literature have found some evidence in support of reporting selection – even though the focus of the accounting research is not explicitly on selection. Balakrishnan, Harris and Sen (1990), for example, show that the geographical composition of firms' activities are statistically and economically significant predictors of future earnings and equity valuations. The overall evidence suggests that firms may face differential trade-offs between the benefit of revealing more information to the financial markets and the cost of revealing too much detail to competitors. This competitive disadvantage may be relatively more severe when firms that are required to report geographic segment data by the FASB compete against firms that need not, usually because they are foreign incorporated firms that do not file according to U.S. Generally Accepted Accounting Principles (GAAP).

It is likely, then, that firms choose whether to report country-specific geographic-segment data based on expectations about the financial and product market structure. The model offers a way to potentially control for this type of selection using the same approach as that used to control for the bias generated by true exit. In the model, current profits are a function of the firm's own state variables, capital \mathbf{K} , prices \mathbf{p} and productivity ω , and a vector of the state variables of the other firms in the market. The latter, (following Ericson and Pakes 1995), is a counting measure that lists the vector of state variables of all the firm's active competitors – which is referred to as the market structure. The market structure then consists of a list of tuples of state variables for all of the active firms. Just as selection bias results from the fact that exit truncates the observed distribution of s as a function of the production inputs, bias also results from reporting choices that truncate the observed distribution of s as function of production inputs and equilibrium market structure. Since the market structure is identical across firms in a given period, the

selection probability presented in equation (11) for true exit is also applicable for reporting exit. It follows that the derivation of equation (14) is applicable for reporting exit as well. Thus, when I estimate the selection probability \hat{P}_t and use it together with the estimate of the productivity shock $\hat{\omega}_t$ to correct for selection bias resulting from true exit, this procedure can also correct for bias resulting from reporting exit.

There are two primary reasons to focus on the country sample. First, both the cost of capital and local demand conditions are important determinants of firm behaviour that cannot be constructed at higher levels of aggregation. While better measures of the cost of capital and demand effects could theoretically be constructed at an even more disaggregated level (e.g. the cost of capital could incorporate sub-federal tax policies), the data to do so are unavailable. Second, it is possible to isolate individual countries in the sample and analyse how firm behaviour differs among countries. This is the strategy pursued in this paper, where I concentrate on U.S. parents and their Canadian foreign affiliates.

There are two important general limitations of the geographic segment data. First, firms have more than the usual latitude in what they include in the data. For example, excise taxes might be included in sales, or intangibles might be included in fixed assets. I attempt to mitigate these problems by isolating discrepancies from data footnotes. Nevertheless, it must be emphasized that care is required in constructing variables from these data and data errors are more likely.

A second issue is that geographic segment data are reported in U.S. dollars so currency fluctuations could misrepresent the value of the foreign affiliate's data. In particular, the foreign investment variable is generated from changes in the foreign capital stock, which may reflect revaluation of the dollar rather than any real investment activity. However, the qualitative empirical results are unlikely to be sensitive to this problem, since the year used to control for local demand shocks could also control for the kind of country-specific measurement error caused by exchange rate revaluations. Nevertheless, as a check on the severity of this problem, I convert the U.S. dollar data into foreign currency equivalents and then construct the investment variables. In order to do this conversion, it is necessary to determine when geographic segment data are converted to dollars. For the purposes of Statement of Financial Accounting Standards No. 14 –

Financial Reporting of Segments in a Business Enterprise (SFAS 14), firms typically convert the data when balance sheets are prepared at fiscal year-end, so I construct the foreign currency equivalent variables using the exchange rate prevailing in the month of the firm's fiscal year end. The qualitative results using these data were similar to those reported below.

The sample selection rules are better understood by knowing the genesis of the data. Geographic segment disclosures are mandated by SFAS 14, which was issued in 1976. SFAS 14 was designed to provide information useful for evaluating the nature of the firm's investment and production decisions but to allow discretion in defining reportable segments and in employing coarse definitions. SFAS 14 requires firms to disclose information about foreign sales, income, and fixed assets if foreign operations account for 10 percent or more of a firm's revenue or assets. The directive became effective for companies with fiscal years ending after December 15, 1976. Two notes should be made about data extending to 1976. Segment data through fiscal years ending in 1979 contain many classification adjustments consistent with a learning process. Moreover, there appears to be little gain from extending samples before 1979 because of the paucity of data. As a result of these considerations, I begin the sample in 1980.

There is another more subtle issue in sample selection. In order to properly understand the effect of taxes on investment, the "new investment" component must be separated from the "mergers and acquisitions" component. This is a potentially serious problem in these data, since reporting requirements are broad and data definitions are coarse. In previous research, Cummins and Hubbard (1995) found that this problem is not a significant one. But I take two additional steps in the data construction to minimize any potential contamination. First, as is typical in the investment literature, I delete major capital stock changes to eliminate clear discontinuities in the identity of the firm. Second, the geographic segment file provides a footnote if the data reflect the results of a merger or acquisition. I also delete firms recording this footnote.

The variables used in the econometric estimation are constructed as follows. Total output is defined as the sum of each foreign affiliate's reported net sales for its geographic segment as well as its parent's domestic reported net sales. Net investment is the change in the net stock of tangible fixed assets. The replacement value of the parent's and affiliate's capital stock (hereafter

capital stock) is constructed from the gross stock of tangible fixed assets using the perpetual inventory method (with the first data year used as the initialization). The depreciation rate used for the parent and the affiliates is assumed identical and constructed using the approach in Cummins, Hassett and Hubbard (1995).

Labour input is defined as total employees.⁶ I use an auxiliary dataset to construct the parents' and affiliates' labour input from total employees. The U.S. Bureau of Economic Analysis (BEA) reports parent employment by industry and foreign affiliate employment by country and industry in its annual survey, U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and their Foreign Affiliates (for a detailed description of the data, see U.S. Department of Commerce 1995). Using these data, I construct the percent of total employment accounted for by the parent and its affiliates by industry. I then match these industry weights to the firm-level data, and construct parent and affiliate employees as the respective weight multiplied by total employees. The BEA's industry classification fails to correspond exactly to the firm-level SIC industry codes. Rather, it corresponds to a three-digit SIC code, or in some cases, to a two- or four-digit code. Parent and affiliate employees are constructed using the most disaggregated BEA weight available. In most cases, this will be a good approximation of parent and affiliate employment, since the survey from which the weights are constructed includes the MNCs in the firm-level data.

Home and host country tax variables (federal and sub-federal corporate income tax rates, investment tax credits, depreciation allowances, and withholding tax rates on repatriated dividends) are updated and expanded from Cummins, Hassett and Hubbard (1995).⁷ The prices of capital and output goods are, respectively, the property, plant and equipment (PPE) deflator and GDP deflator of the home or host country.

Tables 1 and 2 summarize the data on U.S. parents and their Canadian affiliates. The first table reports selected aggregate data for the MNCs in the sample. Column two shows how many U.S. MNCs are in the sample. While this number varies from year-to-year, the sample size is generally growing over the period, except in 1993 and 1994 when the number reporting actually declined.

⁶ Another measure using wage cost results in too many missing observations to be empirically useful.

⁷ Ken McKenzie supplied some of the Canadian tax parameters.

The remaining columns present aggregate U.S. parent and Canadian affiliate sales, tangible fixed assets and employees. The sample aggregates account for a large fraction (greater than half for each variable) of those reported in the BEA's annual survey of U.S. direct investment abroad (*Survey of Current Business*, various issues). Thus while the sample does not contain all the U.S. parents and their Canadian affiliates, it nonetheless contains the largest U.S. MNCs, and by that measure is representative.

Table 2 reports summary statistics (bi-yearly) for the sample variables. The sample variables are MNCs sales (Y), parent and affiliate capital (K^d and K^f , respectively) and parent and affiliate labour (L^d and L^f , respectively). Included are the mean, medians, quartiles and minimums and maximums of the variables used in the estimating equations. The number of MNCs declines significantly from 1, for three reasons. First, firms reporting zeros for any of the variables were deleted. Second, the construction of the replacement value of the capital stock eliminated firms. Finally, to focus on the relationship between U.S. parents and their Canadian affiliates, firms reporting data for affiliates in countries in addition to Canada were not included. Aggregating the non-Canadian affiliates with the Canadian ones potentially contaminates the analysis, however, results are robust to including those MNCs that report in more than just their Canadian affiliates. The total number of observations for which there is complete data is 757, which represents more than 100 firms.

The first quartile of the sample variables shows that the sample contains a large number of relatively small MNCs. For example, there are several MNCs that have a total labour force of less than five employees.⁸ The upper quartile shows that the sample contains many of the largest U.S. MNCs (e.g. General Motors). The means and medians of the sample variables are similar to those of Compustat industrial file firms over the same period.

⁸ The MNCs with small numbers of employees were overwhelmingly concentrated in the computer software and specialty instruments industries.

4. Empirical Results

Table 3 presents the parameter estimates of the spatially separable and general production technology models using ordinary least squares and the semiparametric estimator. The first and second columns report the estimates for the spatially separable production technologies. The parameter estimates of these models appear severely misspecified in comparison to the other estimates. Estimates of the factor shares indicate decreasing returns to scale and unrealistically low estimates of the labour shares. Column three reports the baseline estimates of the general joint production model, without correcting for endogeneity and selection bias.

Column 4 reports estimates of equations (9) and (15). The parameter estimate of α_{Ld} in equation (9) from the first step of the semiparametric estimator is 0.413; the estimate of α_{Lf} is 0.350. Both parameter estimates are statistically significant. The parameter estimate of α_{Llf} is -0.204, the largest in absolute magnitude of the cross-terms, and is statistically significant. The parameter estimates of α_{Kd} and α_{Kf} are, respectively, 0.174 and 0.095. Both estimates are statistically significant. The parameter estimate of $\alpha_{Kd Kf}$ is -0.071 and is statistically significant. The magnitude and signs of production function parameter estimates are not sufficient to gauge substitution possibilities between inputs.

Column 5 reports estimates of the semiparametric model imposing the restriction that capital and labour inputs are linearly separable. I will use these estimates below to further analyse the estimated elasticities of substitution.

Applied production analysis usually reports Allen elasticities of substitution (AES). When there are more than two inputs, however, the AES – which is the constant-output cross-price elasticity of demand between goods i and j divided by the share of the j th input in total cost – is quantitatively meaningless and qualitatively uninformative relative to the price elasticities of demand (PES), the Morishima (MES) and shadow elasticities of substitution (SES) (see Blackorby and Russell 1981, 1989; McFadden 1963; Mundlak 1968).

The Morishima elasticity of substitution is the log derivative of an input quantity ratio (taken from the compensated demands) in the i th co-ordinate direction. It provides a correct measure of the

ease of substitution or curvature of the production function, and is – in a frictionless world – a sufficient statistic for assessing the effects of changes in price or quantity ratios on relative factor shares. It is defined as

$$MES_{ij} = PES_{ji} - PES_{ii} \quad (16)$$

where subscripts indicate inputs. The SES are the factor share weighted average of the MES.

The MES elasticity has two important features. First, it is asymmetric, $MES_{ij} \neq MES_{ji}$. This is because the derivative is taken in the co-ordinate direction. That is, MES_{ij} is calculated by assuming that the price ratio is changed because of a change in p_i , whereas MES_{ji} is calculated by varying the ratio via p_j . To illustrate an extreme case of this asymmetry, assume $PES_{ji} < 0$ and that $|PES_{ii}| > |PES_{ji}| > |PES_{jj}|$. Then $MES_{ij} > 0$ but $MES_{ji} < 0$: inputs i and j are substitutes by the former and compliments by the latter. Second, inputs can be AES compliments and MES substitutes. Thus drawing inferences from the AES is potentially misleading.

Since the production function is accompanied by adjustment costs, and these have not been estimated, one should interpret these elasticities with caution. The reported elasticities measure the change in the ratio of the desired steady-state or "target frictionless" domestic and foreign capital stocks with respect to a change in the ratio of the factor prices in each country. If adjustment costs are very high, this information might not be informative for assessing the effects of transitory policy, or of short-run effects of permanent policies. In related work, however, Altshuler and Cummins (1996) estimated adjustment costs joint with a translog production function for Canadian MNCs with affiliates in the United States, and found that the marginal adjustment costs are relatively small, about five percent of the cost of the investment for manufacturing.

The elasticities of input substitution are calculated from the parameter estimates of the semiparametric unrestricted translog in Table 3 at the full sample means and the 1994 means in Table 2. Tables 4 through 7 present the AES, PES, MES and SES for all the inputs. Summarizing all the tables, there are four main findings about cross-country substitutability. First, domestic and foreign labour are complements, although the degree of complementarity has declined to nearly zero by 1994. Second, domestic labour and foreign capital are relatively strong substitutes. Third,

domestic capital and foreign labour are relatively easy substitutes. Finally, domestic and foreign capital are also strong substitutes.

There is an emerging body of literature on the ease of substitutability between domestic and foreign labour (see, for example, Lawrence and Slaughter 1993; Slaughter 1995). These estimates are consistent with other studies that have found that the two are complements. The results for capital contrast sharply with those from reduced-form estimates of correlations of aggregate variables typical of the macro/international literature on capital mobility. Those studies found that capital is largely immobile with implied elasticities of substitution near zero. However, as emphasized by several authors, positive domestic saving-investment correlations interpreted as evidence of capital immobility do not themselves provide evidence against mobility (for a review of these arguments see, for example, Obstfeld 1993). The elasticities of substitution support this interpretation of the previous empirical studies.

The AES and PES own elasticities of substitution are calculated as well.⁹ Using the full sample means the own elasticities on domestic and foreign labour are quite small, and are relatively large on domestic and foreign capital (consistent with the fact that the labour shares are large relative to the capital shares). Using the 1994 sample means, the qualitative results are the same, except foreign labour has an own elasticity that is comparable to those on domestic and foreign capital.

The within-country factor substitutability is also reported in Tables 4 through 7. The AES and PES elasticities tell a different story from the MES and SES elasticities, so I concentrate on the latter two. Using either the full sample or 1994 sample means, the MES of domestic capital for domestic labour indicate substitutability (0.592 and 0.459, respectively), while the MES of domestic labour for domestic capital is about zero (-0.043 and -0.024, respectively). Recalling the discussion of the MES, this means when the price of domestic capital increases, there is substitution to domestic labour, but when the price of domestic labour rises there is almost no effect on domestic capital. Using either the full sample or the 1994 sample means, the MES of foreign capital for foreign labour indicates complementarity (-1.161 and -1.291, respectively),

⁹ The own elasticities are undefined using the MES and SES.

while the MES of foreign labour for foreign capital is about zero (0.092 and -0.086, respectively). This means that when the price of foreign capital increases, both foreign capital and foreign labour decrease, but when the price of foreign labour increases, foreign capital is almost unaffected. Since the SES are share-weighted averages of the MES, the SES of domestic labour for domestic capital indicate some substitutability, and the SES of foreign labour for foreign capital indicates some complementarity.

The elasticities can be further analysed by decomposing them into two effects. First, a change in the input price ratio causes technical substitution between the inputs along the old isoquant. This is called the gross elasticity of substitution. Second, a change causes an expansion effect along the new expansion path associated with new input prices. Pedagogically, these two effects are analogous to consumption substitution and income effects, respectively.

Consider a firm producing output Y with production function $F(X)$, where $X = \{x_1, x_2, \dots, x_n\}$,

$$Y = F(X) = F(x_1, x_2, \dots, x_n).$$

Let the set $N = \{1, 2, \dots, n\}$ be partitioned into S subsets $\{N_1, N_2, \dots, N_S\}$ and $\{x\}$ into S bundles $\{x^{(1)}, x^{(2)}, \dots, x^{(S)}\}$ so that $x_i \in x^{(s)}$ if $i \in N_s$. Homothetic weak separability with respect to the partition is necessary and sufficient for the production function to be represented:

$$Y = F[f_1(x^{(1)}), f_2(x^{(2)}), \dots, f_S(x^{(S)})],$$

where $f_s(x^{(s)})$ is a positive strictly quasi-concave homothetic production sub-function of only the elements in N_s . Assume $Y = F(f_1(K^d, K^f), f_2(L^d, L^f))$, and total capital K^T is the output of the production subfunction $K^T = f_1(K^d, K^f)$ and total labour is defined analogously $L^T = f_2(L^d, L^f)$.

An example illustrates the importance of considering both of these effects. Figure 1 depicts a representative firm using K_1 units of total capital and L_1 units of total labour at a pair of initial input price P_K and P_L (represented by the line AA). Figures 2 and 3 show that at the initial prices of domestic and foreign capital P_{K^d} and P_{K^f} , respectively, the firm produces K_1 using K_1^d and K_1^f (represented by the line BB). Similarly, Figure 4 shows that at the initial prices of domestic

and foreign labour P_{Ld} and P_{Lf} , respectively, the firm produces L_1 using L_1^d and L_1^f (represented by line CC).

Now consider the effects of introducing an investment incentive in the domestic market that decreases P_{Kd} . First, holding fixed the output of the total capital subfunction K_1 the isocost cost line shifts as P_{Kd} falls, causing the demand for domestic capital to increase from K_1^d to K_2^d and the demand for foreign capital to decrease from K_1^f to K_2^f (represented by line DD in Figures 2 and 3). These are gross substitution effects. Second, holding fixed the output of the total production function, the decrease in P_{Kd} lowers total price P_K . The total isocost line in Figure 1 shifts to EE, causing the demand for total capital to increase from K_1 to K_2 and the demand for total labour to decrease from L_1 to L_2 . This results in an expansion of the K isoquant from K_1 to K_2 or DD to FF in Figure 2 and to FF' in Figure 3, increasing the demand for both domestic and foreign capital to K_3^d and K_3^f , respectively. These are the expansion effects. For domestic capital, the gross substitution effect (K_1^d to K_2^d) and the expansion effect (K_2^d to K_3^d) have the same sign, but for foreign capital, the effects are opposite. The gross substitution effect decreases demand for K^f and the expansion effect increases demand. The net elasticity of substitution is the sum of these two effects. It is an empirical question which effect dominates. If the expansion effect dominates, domestic and foreign capital are gross substitutes but net complements. Figure 2 shows the case when the scale elasticity is large relative to the gross elasticity of substitution, and Figure 3 shows the opposite case.

Using the restricted semiparametric model parameter estimates in Table 3, I can decompose the net price elasticities between capital inputs. The effects are presented in Table 8. The estimates show that the scale elasticity is an order of magnitude smaller than the gross elasticities (the case depicted in Figure 3). Caution should be used in interpreting these results since linear separability of capital and labour is rejected in the unrestricted semiparametric parameter estimates in Table 3. Nevertheless the results suggest that the capital scale elasticities are relatively small compared to the gross elasticities.

5. Conclusion

I find that U.S. MNCs are able to substitute factor inputs between their domestic and Canadian affiliates rather easily, except domestic and foreign labour which are complements. The elasticity estimates imply that an increase in capital taxation that leads to a 10-percent increase in the relative price of domestic capital would lead to at least a 10-percent decrease in the steady-state ratio of domestic to foreign capital. This level of substitution suggests that countries may face increasing pressure on corporate tax revenues, as companies shift production to the lowest tax countries. Taken as a whole, the estimates provide a basis for evaluating the degree to which MNCs can shift taxes to other factors of production, and the size of the efficiency costs that result.

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TABLE 1
Selected Aggregate Data for Sample
U.S. Parents and Canadians Affiliates

Year	Number of MNCs	Sales		Tangible Fixed Assets		Employees	
		Parent	Affiliate	Parent	Affiliate	Parent	Affiliate
1980	214	488469.916	177118.090	232022.204	103185.668	4596494	206424
1981	212	493271.742	164172.021	231414.584	96835.188	4491420	200627
1982	229	428270.746	143762.655	220611.070	85992.644	3832755	161381
1983	240	442160.173	132025.256	242950.939	84602.634	3938132	167290
1984	263	508080.890	135456.517	290011.727	94171.903	4604607	187560
1985	279	551132.827	152510.548	359733.977	123293.581	4996321	232643
1986	290	539537.799	139090.866	337160.649	120908.018	4826889	235940
1987	318	554303.438	158227.986	369627.945	144189.805	4834209	229216
1988	361	599767.400	181200.882	553391.637	183062.712	4983200	263551
1989	392	636517.947	186106.698	638717.439	204417.147	5394083	225421
1990	408	630476.540	206988.791	635150.633	240476.929	5284975	249919
1991	420	609743.647	203981.398	637135.186	231592.782	5357815	219697
1992	423	434466.049	132111.375	345183.193	127366.465	3552111	166144
1993	397	373952.334	74247.844	350187.410	100983.595	2868053	131900
1994	337	343881.326	64267.192	332347.618	97233.968	2378522	113085

Variables are in millions of 1987 U.S. dollars, except employees, which is in units.

TABLE 2
Summary Statistics for Sample Variables (Bi-yearly)

Year	Number of MNCs	Variable	Mean	Min	Q1	Median	Q3	Max
1980	27	<i>Y</i>	1227.24	2.302	17.83	47.79	293.29	20000.70
		<i>K^d</i>	414.90	2.046	7.00	46.05	154.11	6804.35
		<i>K^f</i>	38.69	0.014	4.01	9.10	35.65	467.52
		<i>L^d</i>	10583.41	4.000	97.00	295.00	1646.00	212445.00
		<i>L^f</i>	2234.82	1.000	12.00	73.00	442.00	43555.00
1982	25	<i>Y</i>	1168.28	0.568	13.42	39.76	275.53	20186.48
		<i>K^d</i>	392.52	0.624	6.84	30.52	101.34	6311.32
		<i>K^f</i>	30.68	0.607	3.48	6.38	18.65	346.87
		<i>L^d</i>	10501.40	4.000	104.00	262.00	1710.00	199167.00
		<i>L^f</i>	2222.72	1.000	19.00	96.00	409.00	40833.00
1984	41	<i>Y</i>	1004.46	6.081	37.71	104.37	440.87	23357.38
		<i>K^d</i>	491.43	1.085	15.58	66.84	229.78	7568.34
		<i>K^f</i>	50.69	0.289	3.10	7.48	29.61	479.33
		<i>L^d</i>	9217.78	20.000	150.00	751.00	2472.00	244073.00
		<i>L^f</i>	1811.49	6.000	46.00	199.00	674.00	45927.00
1986	44	<i>Y</i>	535.68	6.668	29.65	142.13	468.07	8083.84
		<i>K^d</i>	263.56	0.605	23.80	92.63	193.51	1890.12
		<i>K^f</i>	42.18	0.502	3.64	9.32	24.88	436.83
		<i>L^d</i>	5152.32	12.000	169.50	1311.00	3449.50	65842.00
		<i>L^f</i>	1209.82	4.000	55.00	374.50	844.50	15658.00
1988	59	<i>Y</i>	795.47	0.371	20.43	101.29	647.86	13107.65
		<i>K^d</i>	337.63	0.029	15.19	54.19	280.57	2035.27
		<i>K^f</i>	60.35	0.098	3.13	13.74	39.27	561.70
		<i>L^d</i>	5980.10	7.000	134.00	894.00	3637.00	87130.00
		<i>L^f</i>	1410.59	3.000	41.00	225.00	1032.00	20069.00
1990	72	<i>Y</i>	742.08	0.510	22.90	87.40	524.46	13133.42
		<i>K^d</i>	324.50	0.366	11.52	38.05	240.03	2432.84
		<i>K^f</i>	67.46	0.039	2.22	8.32	42.26	641.33
		<i>L^d</i>	4990.15	6.000	121.00	462.50	2382.50	91668.00
		<i>L^f</i>	1256.61	2.000	41.00	192.50	891.50	22832.00
1992	74	<i>Y</i>	1144.17	0.689	45.31	209.73	860.90	12531.55
		<i>K^d</i>	480.95	0.476	34.88	121.14	690.58	2382.76
		<i>K^f</i>	87.33	0.030	3.64	13.98	108.35	872.54
		<i>L^d</i>	5672.97	9.000	214.00	894.50	3362.00	99885.00
		<i>L^f</i>	919.49	4.000	57.00	224.50	904.00	7910.00
1994	55	<i>Y</i>	847.48	0.799	29.32	134.30	523.34	12393.21
		<i>K^d</i>	509.18	3.556	22.57	101.88	493.45	5219.50
		<i>K^f</i>	75.71	0.004	4.60	10.11	69.38	714.73
		<i>L^d</i>	4284.49	21.000	135.00	801.00	2538.00	89357.00
		<i>L^f</i>	1149.87	15.000	41.00	194.00	758.00	20643.00
Full Sample	757	<i>Y</i>	863.30	0.006	24.68	110.83	474.11	23357.38
		<i>K^d</i>	392.00	0.029	16.52	65.83	289.08	7568.34
		<i>K^f</i>	62.66	0.004	3.30	10.29	38.57	872.54
		<i>L^d</i>	6047.14	2.000	150.00	772.00	2783.00	244073.00
		<i>L^f</i>	405.18	1.000	40.00	223.00	788.00	45927.00

Variables are defined in the text. Variables are in millions of 1987 U.S. dollars, except employees, which is in units.

TABLE 3
Translog Production Function Parameter Estimates

Parameter	Domestic	Ordinary Least Squares		Semiparametric	
		Foreign	Joint	Unrestricted	Restricted
α_L^d	0.556 (0.066)	---	0.185 (0.188)	0.413 (0.204)	0.310 (0.202)
α_L^f	---	0.160 (0.069)	0.342 (0.167)	0.350 (0.177)	0.279 (0.185)
α_K^d	0.356 (0.064)	---	0.308 (0.080)	0.174 (0.045)	0.170 (0.035)
α_K^f	---	0.424 (0.055)	0.073 (0.063)	0.095 (0.037)	0.254 (0.041)
$\alpha_{L^d}^d$	-0.042 (0.022)	---	0.148 (0.091)	0.101 (0.103)	0.182 (0.091)
$\alpha_{L^f}^f$	---	0.027 (0.016)	0.165 (0.064)	0.202 (0.083)	0.273 (0.088)
$\alpha_{K^d}^d$	-0.030 (0.026)	---	0.040 (0.034)	0.021 (0.015)	0.071 (0.018)
$\alpha_{K^f}^f$	---	-0.005 (0.016)	0.047 (0.018)	0.050 (0.018)	0.071 (0.018)
$\alpha_{L^d}^d$	0.049 (0.022)	---	-0.043 (0.074)	0.0009 (0.045)	---
$\alpha_{L^f}^f$	---	---	0.074 (0.039)	0.107 (0.039)	---
$\alpha_{L^d}^f$	---	---	-0.168 (0.031)	-0.204 (0.087)	-0.221 (0.087)
$\alpha_{K^d}^d$	---	---	0.061 (0.035)	0.070 (0.038)	---
$\alpha_{K^f}^f$	---	0.032 (0.013)	-0.043 (0.028)	-0.061 (0.034)	---
$\alpha_{K^d}^f$	---	---	-0.067 (0.024)	-0.114 (0.013)	-0.071 (0.018)
Year Effects	Yes	Yes	Yes	Yes	Yes
Non-parametric Series:	No	No	No	Yes	Yes
First Stage				Polynomial in (i, k, p)	Polynomial in (i, k, p)
Second Stage				Polynomial in (i, k, p)	Polynomial in (i, k, p)
Third Stage				Polynomial in (\hat{P}, \hat{g})	Polynomial in (\hat{P}, \hat{g})
Wald Statistic	2.68	33.31	2.60	---	---
p-value	(0.102)	(0.000)	(0.107)		
Number of Observations	783	759	757	439	439

The parameter estimates in columns 1 through 3 are based on the translog production function defined by (7) in the text. The parameter estimates in columns 4 and 5 are based on the semiparametric procedure described in the text. The dependent variable is domestic sales for domestic production, foreign sales for foreign production, and total sales for joint production. Asymptotic standard errors are in parentheses. The Wald statistic is a test of constant returns to scale. The significance level of the test is in parentheses below the statistic.

TABLE 4
Allen Elasticities of Input Substitution (AES_{ij}) from the
Semiparametric Unrestricted Translog Parameter Estimates

Full Sample Means				
Input	Domestic Labour (L^d)	Foreign Labour (L^f)	Domestic Capital (K^d)	Foreign Capital (K^f)
Domestic Labour (L^d)	-0.064	-1.409	-0.202	3.551
Foreign Labour (L^f)	-1.409	-0.012	2.590	-5.675
Domestic Capital (K^d)	-0.202	2.590	-1.638	1.882
Foreign Capital (K^f)	3.551	-5.675	1.882	-6.512

1994 Sample Means				
Input	Domestic Labour (L^d)	Foreign Labour (L^f)	Domestic Capital (K^d)	Foreign Capital (K^f)
Domestic Labour (L^d)	-0.432	0.024	-0.504	5.093
Foreign Labour (L^f)	0.024	-2.560	2.969	-7.906
Domestic Capital (K^d)	-0.504	2.969	-1.714	1.602
Foreign Capital (K^f)	5.093	-7.906	1.602	-6.585

Allen elasticities of input substitution are calculated from the parameter estimates of the semiparametric unrestricted translog in Table 3 at the full sample means and the 1994 means in Table 2.

TABLE 5
Price Elasticities of Input Demand (PES_{ij}) from the
Semiparametric Unrestricted Translog Parameter Estimates

Full Sample Means				
Input	Domestic Labour (L^d)	Foreign Labour (L^f)	Domestic Capital (K^d)	Foreign Capital (K^f)
Domestic Labour (L^d)	-0.020	-0.289	-0.083	0.392
Foreign Labour (L^f)	-0.439	-0.002	1.068	-0.627
Domestic Capital (K^d)	-0.063	0.531	-0.676	0.208
Foreign Capital (K^f)	1.106	-1.163	0.776	-0.719

1994 Sample Means				
Input	Domestic Labour (L^d)	Foreign Labour (L^f)	Domestic Capital (K^d)	Foreign Capital (K^f)
Domestic Labour (L^d)	-0.147	0.006	-0.191	0.332
Foreign Labour (L^f)	0.008	-0.618	1.126	-0.516
Domestic Capital (K^d)	-0.171	0.717	-0.650	0.105
Foreign Capital (K^f)	1.732	-1.910	0.608	-0.430

Price elasticities of demand are calculated from the parameter estimates of the semiparametric unrestricted translog in Table 3 at the full sample means and the 1994 means in Table 2.

TABLE 6
Morishima Elasticities of Input Substitution (MES_{ij})
from the Semiparametric Unrestricted
Translog Parameter Estimates

Full Sample Means				
Input	Domestic Labour (L^d)	Foreign Labour (L^f)	Domestic Capital (K^d)	Foreign Capital (K^f)
Domestic Labour (L^d)	---	-0.419	-0.043	1.126
Foreign Labour (L^f)	-0.286	---	0.533	-1.161
Domestic Capital (K^d)	0.592	1.744	---	1.452
Foreign Capital (K^f)	1.111	0.092	0.927	---

1994 Sample Means				
Input	Domestic Labour (L^d)	Foreign Labour (L^f)	Domestic Capital (K^d)	Foreign Capital (K^f)
Domestic Labour (L^d)	---	0.155	-0.024	1.879
Foreign Labour (L^f)	0.624	---	1.335	-1.291
Domestic Capital (K^d)	0.459	1.776	---	1.258
Foreign Capital (K^f)	0.762	-0.086	0.534	---

Morishima elasticities of input substitution are calculated from the parameter estimates of the semiparametric unrestricted translog in Table 3 at the full sample means and the 1994 means in Table 2.

TABLE 7
Shadow Elasticities of Input Substitution (SES_{ij})
from the Semiparametric Unrestricted
Translog Parameter Estimates

Full Sample Means				
Input	Domestic Labour (L^d)	Foreign Labour (L^f)	Domestic Capital (K^d)	Foreign Capital (K^f)
Domestic Labour (L^d)	---	-0.339	0.230	1.115
Foreign Labour (L^f)	-0.339	---	0.935	-0.346
Domestic Capital (K^d)	0.230	0.935	---	1.038
Foreign Capital (K^f)	1.115	-0.346	1.038	---

1994 Sample Means				
Input	Domestic Labour (L^d)	Foreign Labour (L^f)	Domestic Capital (K^d)	Foreign Capital (K^f)
Domestic Labour (L^d)	---	0.429	0.204	0.942
Foreign Labour (L^f)	0.429	---	1.507	-0.343
Domestic Capital (K^d)	0.204	1.507	---	0.641
Foreign Capital (K^f)	0.942	-0.343	0.641	---

Shadow elasticities of input substitution are calculated from the parameter estimates of the semiparametric unrestricted translog in Table 3 at the full sample means and the 1994 means in Table 2.

TABLE 8
Gross, Scale, and Net Price Elasticities of Demand from
the Semiparametric Restricted Translog Parameter Estimates

Full Sample Means			
Net Price Elasticity	Gross Price Elasticity	Scale Elasticity	Value of Net Elasticity
$PES_K^d \quad K^d$	-0.938	-0.059	-0.997
$PES_K^d \quad K^f$	0.426	-0.033	0.394
$PES_K^f \quad K^f$	0.774	-0.059	0.714
$PES_K^f \quad K^d$	-1.285	-0.033	-1.318

1994 Sample Means			
Net Price Elasticity	Gross Price Elasticity	Scale Elasticity	Value of Net Elasticity
$PES_K^d \quad K^d$	-0.942	-0.058	-1.001
$PES_K^d \quad K^f$	0.431	-0.033	0.398
$PES_K^f \quad K^f$	0.760	-0.058	0.701
$PES_K^f \quad K^d$	-1.270	-0.033	-1.303

The net price elasticity is the sum of the gross price and scale elasticities. The elasticities are calculated from the parameter estimates of the semiparametric restricted translog in Table 3 at the full sample means and the 1994 means in Table 2.

FIGURE 1
Master Production Function Isoquant

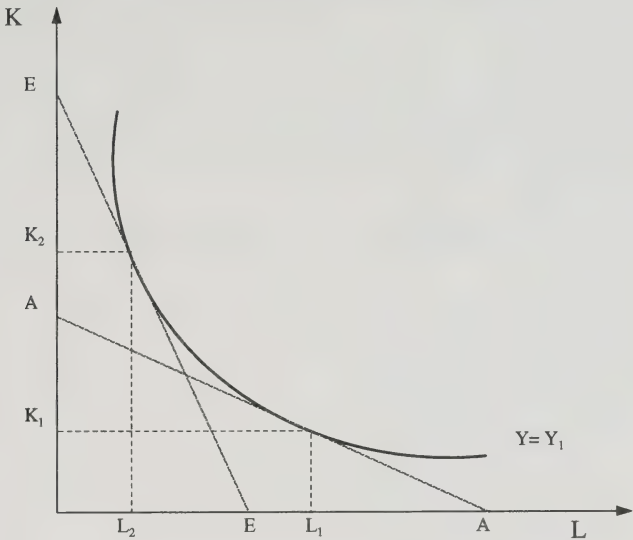


FIGURE 2
Capital Isoquant: Relatively Large Scale Elasticity

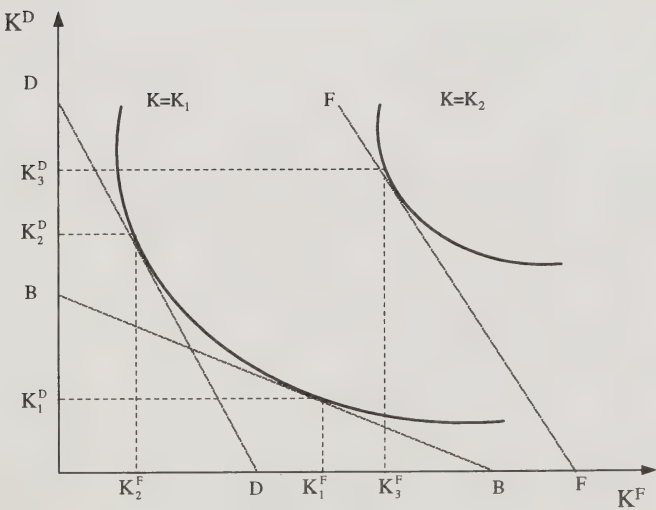


FIGURE 3
Capital Isoquant: Relatively Small Scale Elasticity

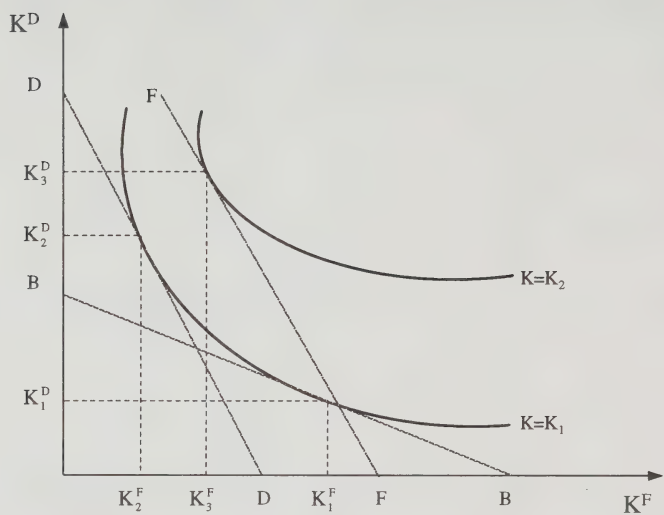
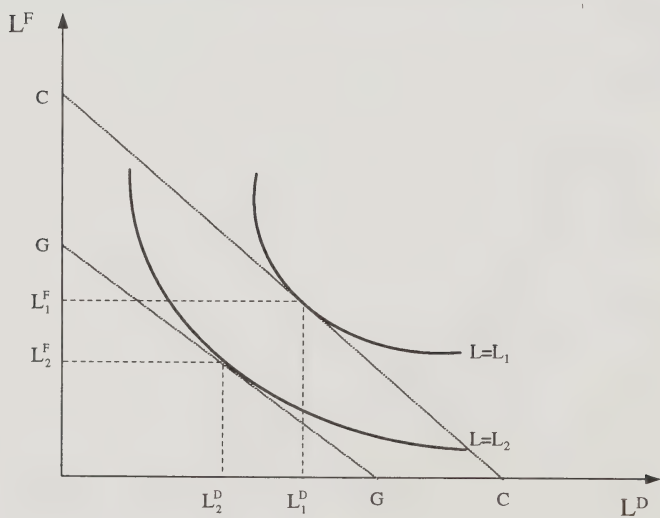


FIGURE 4
Labour Isoquant



Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

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University of Toronto (on leave)
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Mr. Norm Promislow
Buchwald Asper Gallagher Henteleff
Winnipeg, Manitoba

The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

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300 Laurier Avenue West
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They are also available on the Internet at <http://www.fin.gc.ca/>

Technical Committee on Business Taxation Completed Research Studies

- ☐ **WORKING PAPER 96-1**
Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States
Brian Arnold (Goodman Phillips & Vineberg)
Jinyan Li and David Sandler (University of Western Ontario)
- ☐ **WORKING PAPER 96-2**
Why Tax Corporations
Richard Bird (University of Toronto)
- ☐ **WORKING PAPER 96-3**
Tax Policy and Job Creation: Specific Employment Incentive Programs
Ben Cherniavsky (Technical Committee Research Analyst)
- ☒ **WORKING PAPER 96-4**
The Effects of Taxation on U.S. Multinationals and Their Canadian Affiliates
Jason Cummins (New York University)
- ☐ **WORKING PAPER 96-5**
The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments
Michael Devereux (Keele University)
- ☐ **WORKING PAPER 96-6**
International Implications of U.S. Business Tax Reform
Andrew Lyon (University of Maryland)
- ☐ **WORKING PAPER 96-7**
The Economic Effects of Dividend Taxation
Ken McKenzie (University of Calgary)
Aileen Thompson (Carleton University)
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Robert Turner (Ernst & Young, Toronto)
- ☐ **WORKING PAPER 96-11**
The Interaction of Federal and Provincial Taxes on Businesses
Marianne Vigneault (Bishop's University)
Robin Boadway (Queen's University)
- ☐ **WORKING PAPER 96-12**
Taxation of Inbound Investment
Gordon Williamson (Arthur Andersen, Toronto)

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The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments

Michael P. Devereux
Department of Economics
Keele University

December 1996

WORKING PAPER 96-5

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments

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December 1996

WORKING PAPER 96-5

Prepared for the
Technical Committee on Business Taxation

Comments on the working papers are invited and may be sent to:

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Abstract

This paper examines minimum taxes on dividends which form of the imputation systems in France, Germany, Italy and the United Kingdom. The aim of these imputation systems is to at least partial integrate corporate and personal taxes which arise on income generated in the corporate sector. Under such systems, part of the corporate tax is imputed to the shareholder – that is also treated as being part of the shareholders' tax liability. Hence the shareholder receives a tax credit to set against the personal income tax due on the receipt of a dividend.

However, certain forms of corporate income are not taxed – or are taxed at a rate lower than the full corporation tax rate. In this case, when the income is distributed, the tax credit received by the shareholder may not be matched by tax paid at the corporate level. This problem is overcome in a number of ways. For some types of corporate income, France, Germany and Italy charge an explicit minimum tax – known usually as an equalization tax (the *précompte* in France). However, other forms of income can be paid to shareholders without liability to the minimum tax; in these cases the shareholder generally does not receive the tax credit. The United Kingdom does not have an explicit tax, but its imputation system has much the same effect.

The paper describes the imputation systems in each country in some detail, paying particular attention to the minimum tax. The impact of the imputation systems tends to vary across both the source of the income, whether fully taxed or not fully taxed; whether domestic or foreign source income – and across the identity of the shareholder – depending on the tax rate and whether he or she is a resident or non-resident. An Appendix gives a simplified summary of the impact of the imputation systems in the four countries, showing how the net income of a number of different types of shareholders would vary depending on the original source of the income.

The paper also briefly addresses a number of economic issues: it examines the likely impact of the minimum tax on the investment and financing decisions of companies, and outlines how the impact of the imputation system depends on the minimum tax. Finally, it also briefly raises the issue of alternative forms of taxation of corporate source income.

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1. Introduction

This paper examines the European experience with minimum taxes on dividends, as part of the imputation system for the integration of corporate and personal taxes in France, Germany, Italy and the United Kingdom. The first three countries use an explicit minimum tax – known usually as an equalization tax (the *précompte* in France). The United Kingdom does not have an explicit tax, but its imputation system has much the same effect.

The paper is in four parts. Section 2 briefly summarizes the main features of the imputation systems in the four countries, and Section 3 describes them in more detail, following a common framework for each country. The impact of the imputation systems tends to vary across both the source of the income – whether fully taxed or not fully taxed; whether domestic or foreign-source income – and across the identity of the shareholder – depending on the tax rate and whether he or she is a resident or non-resident. The Appendix, therefore, attempts to give a simplified summary of the impact of the imputation systems in the four countries, showing how the net income of a number of different types of shareholders would vary depending on the original source of the income.

Section 4 addresses a number of questions. First, it examines the role of the minimum tax and briefly considers alternatives. It then addresses a number of economic issues, especially relating the impact of the minimum tax to the investment and financing decisions of companies, and outlining how the impact of the imputation system depends on the minimum tax. Finally, it briefly raises the issue of alternative forms of taxation of corporate-source income.

2. General Description of Imputation Systems in Each Country

There are very close similarities in the imputation systems of France, Germany, Italy and the United Kingdom. Yet there are significant differences in their operation.

France, Germany and Italy operate systems that are close to being full imputation systems – that is the corporate and personal tax systems are, in effect, fully integrated.¹ Tax paid at the corporate level is credited to the individual shareholder as a prepayment of his personal income tax. The United Kingdom has a partial imputation system, where only part of the corporation tax charge can be used as a credit against income tax.

In general, in all four countries, each unit of cash dividend received by the shareholder is taxable under income tax. However, the shareholder receives a tax credit, which fully or partially offsets the tax charged at the corporate level. The income tax liability of the shareholder is based on the sum of the cash dividend and the tax credit. However, the tax credit is also available to reduce

¹ France currently has a 10% surtax on corporation tax, which does not form part of the imputation system; strictly, therefore, it has a partial imputation system.

the final income tax liability. In some cases, where the rate of dividend tax credit exceeds the marginal personal income tax rate, this can imply that the shareholder receives a rebate for, in effect, overpaying the income tax due on the dividend.

For example, in France the corporation tax rate is 33 1/3 percent. Of pre-tax profits of 100, this leaves 66 2/3 for distribution as a cash dividend to the shareholder.² If the entire sum is distributed, the shareholder also receives a tax credit of 50 percent of the cash dividend – i.e. 33 1/3. This is equivalent to 33 1/3 percent of the "grossed-up" dividend of 100. The shareholder is liable to tax on the grossed-up dividend of 100 at his or her personal income tax rate. However, the tax credit of 33 1/3 can be used to offset this personal tax liability – in effect, the shareholder is deemed to have already paid personal income tax at a rate of 33 1/3 percent. A shareholder with a marginal income tax rate of, say, 40 percent would be liable to pay 6 2/3 in income tax, which added to the tax credit covers the entire income tax liability of 40. A shareholder with a marginal income tax rate of 20 percent would receive an income tax rebate of 13 1/3. However, in all four countries, there are restrictions on the occasions when a rebate is paid.

The main differences in the operation of the imputation system between countries arise in the tax treatment at the corporate level. Here, while the four systems are broadly similar, the United Kingdom again stands out, this time in its treatment of profits that have not borne the full rate of corporation tax. In general, all four countries have mechanisms in place to prevent shareholders from claiming a dividend tax credit when at least an equivalent amount of tax has not been paid at the corporate level. France, Italy and Germany achieve this by levying an equalization tax on distributions out of profits that have not borne the full rate of corporation tax. For example, distributions of profits that have not been taxed at all at the corporate level are liable to an equalization tax at the corporation tax rate (on the grossed-up dividend).³ In the hands of the shareholder, there is then no need to distinguish between the original source of the dividends. The United Kingdom has a similar system, but it operates in relation to the amount of corporation tax paid, rather than the source of profits.

All four countries also operate alternative methods of dealing with corporate profits that have not borne tax at the corporate level. For various forms of dividends, France and Germany permit dividend payments out of untaxed corporate income for which the shareholder is not entitled to a dividend tax credit. Since the shareholder does not receive the tax credits, there is no need for a corresponding tax charge at the corporate level. In this case the "double" taxation of corporate source income is avoided by the absence of tax at the corporate level. Germany introduced the scheme for all tax-exempt foreign-source income in 1994, and France operates such a scheme for international holding companies. Italy and the United Kingdom have similar schemes under which there is no tax charge at the corporate level on a distribution. However, in these cases, tax-paying shareholders continue to receive a dividend tax credit, but tax-exempt shareholders cannot claim a refund. Italy operates the scheme for dividends subject to the European Union Parent/Subsidiary Directive, which prohibits withholding taxes on the payment of dividends from wholly owned subsidiaries to their parents within the EU; and in 1994, the United Kingdom

² Ignoring the 10% surtax.

³ In Italy, the equalization tax is levied at a rate of only 36%, rather than the corporate tax rate of 37%.

introduced a similar scheme for dividends known as foreign income dividends (FIDs). In principle, these are more straightforward systems than charging an equalization tax that is then offset against personal income tax. However, since in all four countries, the system operates in tandem with the normal imputation system, it is necessary to identify which dividends receive tax credits and which do not.

We now turn to a more detailed description of the systems in each of the four countries considered. The Appendix presents a summary, in a simplified framework of the main elements of each system that identifies the tax treatment of different forms of activity and different shareholders. For each country, the Appendix, therefore, shows the net income deriving to different shareholders of 100 units of pre-domestic tax profit, derived from different sources. Simplifications have to be made in any such exercise; these are recorded in notes to the tables.

3. More Detailed Descriptions of Imputation Systems in Each Country

This section describes in more detail how the imputation systems in each of the four countries operates. We take each country in turn.

3.1 France

3.1.1 Basic Operation of the System

In principle, France operates a full imputation system. The corporation tax rate is 33 1/3 percent. Shareholders of French companies receive a tax credit – the *avoir fiscal* – on dividends received of 50 percent of the net dividend, equivalent to 33 1/3 percent of the grossed-up dividend. Currently, however, France charges a 10 percent surtax, which raises the effective corporation tax rate to over 36 percent; this implies that the system is one of partial, rather than full, imputation. In general, dividends paid out of income that has not borne French corporation tax are subject to an equalization tax at the level of the company – the *précompte* – which is equal to the tax credit received by shareholders. Individual resident shareholders offset the *avoir fiscal* against income tax due on the grossed-up dividend.

3.1.2 Equalization tax

3.1.2.1 When Equalization Tax is Levied

Various forms of income derived by French companies are tax-privileged. For domestic income, this is due to factors such as accelerated depreciation; provision for tax-free reserves; long-term capital gains; tax holidays; and tax credits. In addition, dividends received from non-resident companies are exempt from French corporation tax if the company claims the affiliation privilege – which is available mainly if the company holds at least 10 percent of the subsidiary.

Dividends paid by French companies out of income that has not borne full French corporation tax is liable to the *précompte*. The *précompte* is also charged on dividends paid out of fully taxed profits that have been retained for more than five years. The rate at which the *précompte* is charged depends on the tax paid on the relevant income: the principle is that the *précompte* should

raise the rate of tax to 33 1/3 percent; in cases of exempt income, such as dividends from foreign subsidiaries, this implies that the *précompte* is charged at 33 1/3 percent. For income which has borne some corporation tax, the level of the *précompte* is lower.

Accounting records of French companies are required to segregate income that is liable to the full rate of corporation tax from other income; this latter income is liable to the *précompte* on distribution. However, since the level of tax under the *précompte* depends on how much tax an item of profit has already borne, it is necessary to keep detailed accounting records of different forms of profit and their tax treatment.

There are three important forms of profit for which France levies the *précompte*. The first is long-term capital gains, which are currently taxed at 19 percent, provided they are retained in a special reserve. Distributions from the reserve are, in effect, subject to an equalization tax of 14 1/3 percent – the difference between the corporate tax rate of 33 1/3 percent and the tax already paid of 19 percent. The second form of profit is that earned by foreign branches of French companies. This form of profit is generally exempt from French corporation tax, which implies that distributions out of this profit are liable to the *précompte* at 33 1/3 percent. However, under double tax treaties, any foreign branch profits tax can be credited against the *précompte*. Essentially the same procedure is applied to profits derived from subsidiaries (French and foreign) that are exempt from French corporation tax under the affiliation privilege. Again the *précompte* is levied at 33 1/3 percent, but, under double-tax treaties, the foreign tax credit (described below) is available.

3.1.2.2 Treatment of Foreign Source Income

France does not offer a tax credit for underlying foreign taxes – such a corporation tax – paid on foreign-source income. However, it offers a direct foreign tax credit to resident companies with respect to the following taxes levied by its treaty partners: withholding taxes on dividends; interest and royalties; and branch-profits tax. Where the company does not claim the *affiliation privilege*, the French company must include foreign-source income into taxable profits, to be liable to corporation tax. In so doing, France operates a deduction system for underlying foreign taxes, but a credit system for withholding taxes.

As noted above, where the company claims the *affiliation privilege*, the foreign-source income is exempt from corporation tax. The direct tax credit for foreign withholding taxes cannot be set against corporation tax. However, it can be set against the *précompte* and against French withholding taxes on dividends paid to non-resident shareholders.

In either case, shareholders still receive the *avoir fiscal*. However, since the corporate level tax – whether corporation tax or the *précompte* – is net of the credit for foreign withholding taxes, it is possible that the French dividend tax credit available to shareholders exceeds the French tax levied at the corporate level. In this case, the rate of total tax levied by France on foreign-source income is less than the personal income tax rate: in effect, the foreign tax credit is passed to individual shareholders. In fact, it is possible for the total tax levied by France to be negative: where the shareholder is a tax-exempt individual, for example, the dividend tax credit is refunded – where this exceeds the total corporate level tax collected, it effectively constitutes a partial refund of the

foreign withholding tax or branch-profits tax. Whether or not a refund is paid, this system implies that the withholding tax charged by the foreign country does not affect the post-tax income of the ultimate shareholder.

3.1.2.3 Stacking Rules

In order to minimize liability to the *précompte*, there is clearly an incentive for French companies to pay dividends out of fully taxed profits before drawing on other profits. The system permits companies to do this. Dividends are deemed to be paid from profits in the following order:

(i) profits of the preceding accounting year subject to the full corporation tax rate; (ii) fully taxed profits of the previous four accounting years, in any order (although FIFO is generally most advantageous); (iii) profits which have not been fully taxed under the French corporation tax, in any order at the discretion of the taxpayer. However, parent companies may redistribute dividends received from their subsidiaries in any order.

3.1.2.4 Exceptions to General Practice

France operates an international holding company regime, which may apply where two thirds of the French parent company's fixed assets consists of holdings in non-resident companies, two thirds of profit is generated from that source; and the parent qualifies for the *affiliation privilege*. In this case, the *précompte* is not charged on distributions made by the parent, but dividend tax credits are not available to shareholders. However, foreign tax credits associated with the income received are passed on to shareholders. There are also other circumstances in which France does not levy the *précompte*: for example, where members of a French group file a consolidated tax return, and where certain profits are subject to domestic incentives.

3.1.2.5 Other Issues

Bonus shares are not treated as a dividend payment for tax purposes. They are generally not taxable and do not receive the *avoir fiscal*.

3.1.3 Treatment of Shareholders

The *précompte* is only applied on dividends distributed to shareholders entitled to dividend tax credits and those resident in non-treaty countries.

3.1.3.1 Resident Shareholders

Resident individual shareholders subject to income tax (at rates ranging from zero to 58.6 percent) pay income tax on the grossed-up dividend, offset by the *avoir fiscal*. Individuals with marginal income tax rates less than 33 1/3 percent receive a refund on the excess of the *avoir fiscal* over their tax liability.

The treatment of dividends received by resident corporate shareholders depends on whether the *affiliation privilege* is available. Where it is available, the dividends received are not taxable under corporation tax. The *avoir fiscal* cannot be used to set against corporation tax on other sources of profit. However, it can be set against any *précompte* that may be due on redistribution of the

income. Where the *affiliation privilege* is not available, the grossed-up dividend is included in taxable profit, and the *avoir fiscal* can be used as a credit against corporation tax. Any excess credit after this is lost – it cannot be carried forward or backward, not passed on to shareholders. Companies can elect whether to make use of the *affiliation privilege*. The tax-minimizing choice depends on the size of taxable profit (including the dividend), and the opportunity for paying dividends out of taxed profit (and therefore not having to pay the *précompte*).

In general, tax exempt entities that are not liable to tax on dividend receipts also are not entitled to receive the *avoir fiscal*. Hence, they do not receive a refund equivalent to the *avoir fiscal*. However, pension funds are entitled to the *avoir fiscal*, despite the fact that they do not pay tax on dividends distributed by French companies. Where the *avoir fiscal* exceeds the pension fund's corporation tax liability, the excess is refunded.

3.1.3.2 Non-resident Shareholders

Dividends distributed by French companies to non-resident shareholders are generally subject to a 25 percent withholding tax.

However, the *avoir fiscal* is partially extended to portfolio shareholders resident in approximately 30 percent of countries with which France has a double-tax treaty. This generally has the effect of reducing the withholding tax to 15 percent of grossed-up dividends. A similar arrangement for direct shareholders applies only for direct investment from Italy, where France levies a 5 percent withholding tax on dividends, and Italian shareholders receive half of the *avoir fiscal*. For dividends paid to other non-resident shareholders, any *précompte* actually paid, net of any withholding tax, is refunded to the shareholder. Under the European Union Parent/Subsidiary Directive, withholding taxes on dividends paid to parent companies in other members states of the European Union are prohibited.⁴

3.2 Germany

3.2.1 Basic Operation of the System

At the national level, Germany operates a full imputation system. The operation of this system is complicated by a split-rate corporation tax system, with a tax rate of 45 percent for retained earnings and 30 percent for distributed profits. Some income also bears a lower rate of corporation tax, as described below.

Distributions out of profit that has not borne the full rate of corporation tax is treated in one of two ways. Foreign source income that has not borne German corporation tax may be distributed to shareholders without the payment of any equalization tax; shareholders do not receive a dividend tax credit on this form of dividends. Distributions from other income that has not borne the full rate of corporation tax are generally liable to an equalization tax, which has the effect of

⁴ However, this exemption is denied to EU parents entitled to the *avoir fiscal*. In practice, this applies only to Italian parents.

raising the effective corporation tax rate on the income to 30 percent. A rebate is paid to the company on distributions from income that has borne the corporation tax at 45 percent.

In addition to the corporation tax, German municipalities levy a trade tax (the *Gewerbesteuer*), which varies from 12 percent to 20 percent of taxable income. This tax does not form part of the imputation system.

3.2.2 Equalization Tax

3.2.2.1 When Equalization Tax is Levied

In determining whether the equalization tax is paid on a distribution, the German system allocates all profit to one of three broad categories, listed below. Income is cumulated over time into each of the categories, and cumulated undistributed income in each category (other than EK 30) is recorded, and is available for distribution. The main categories are as follows:⁵

EK 45 – profits taxed at the retained earnings rate

EK 30 – profits taxed at the rate for distributions

EK 0 – exempt profits, subdivided into:

EK 01 – foreign profits exempt from German corporation tax

EK 02 – domestic profits exempt from German corporation tax

EK 03 – profits of years before 1977 (when the imputation system was introduced)

EK 04 – capital contributions of shareholders

Allocating profits between these categories is straightforward in principle, although the computations may be less straightforward. The principle is simply that any profits allocated to a category must be net of tax levied at the relevant rate. If an item of profit is taxed at some intermediate rate, the profit will be allocated to more than one category. An example is given below for the case of foreign-source income.

Taxation of dividends at the corporate level depends on the category of income from which the dividend is deemed to have been paid:

EK 45: German companies receive a refund at a rate of 15/55 of distributions from this category. This has the effect of reducing the rate of corporate tax borne by the distributions to 30 percent. There is no time limit for dividend payments from this category in order to qualify for the refund. The cumulative total of undistributed profits is reduced by 55 units for every 70 units distributed.

⁵ There are other categories that reflect profits taxed under previous tax systems: these include profits taxed at 50% and 36% (the tax rates prior to 1994). The requirement that distributed profits have borne tax at 30% implies that the adjustment on distribution depends on the tax rate at the time the profits were earned. This clearly complicates the operation of the tax system.

EK 30: There are no tax consequences at the corporate level.

EK 01: No equalization tax is levied on distributions from this category. Unlike all of the other categories, however, distributions from this category do not give rise to a dividend tax credit at the shareholder level.

EK 02 and EK 03: The equalization tax is levied at a rate of 30/70 of the distribution. The cumulative total of undistributed profits is reduced by 100 units for every 70 units distributed.

EK 04: Distributions from this category are considered to be a return on capital, and hence are not liable to tax in the hands of the company or the shareholder.

3.2.2.2 Treatment of Foreign-Source Income

In principle, Germany taxes the foreign-source income of German resident companies. It offers both a direct and indirect tax credit against foreign taxes. The tax credits are on a source-by-source basis. Excess credits cannot be carried forward or backward. The indirect tax credit can be used as a credit against the foreign tax paid by second-tier foreign subsidiaries. However, under many double-tax treaties, Germany exempts foreign-source income from foreign subsidiaries and permanent establishments.

Foreign-source income that is exempt from German tax is included in category EK 01. However, the categorization of foreign source income that is subject to German corporation tax is much more complex. In effect, the income is divided between EK 45, EK 30 and EK 01, depending on how much German corporation tax is paid. The aim of the categorization is that the dividend tax credit in the hands of the shareholder should reflect the German tax paid at the corporate level.

For example, suppose that a German company received foreign-source income of 100 units on which it had paid foreign tax of 10 units. German corporation tax would be 45 percent of 100, less 10 tax credits – i.e. 35. In allocating this income to the alternative categories, the tax liability is divided by the income net of foreign tax, i.e. 90. Thus 27 of the tax liability (i.e. 30 percent of 90) is deemed to have been imposed at a tax rate of 30 percent. The remaining 8 of tax liability is deemed to have been due to the additional tax rate of 15 percent – bringing the total charge on part of the income to 45 percent. The complex part of the computation is to determine exactly what part of the net-of-German tax income of 55 has been taxed at 30 percent and what part at 45 percent; this determines the contributions to the categories EK 45 and EK 30. In this example, the tax liability of 8, which is due to the additional 15 percent tax, implies that the gross income subject to this tax rate is 8 divided by 0.15, i.e. 53.33. This is the gross income which is added to EK 45. In practice, however, the categories are based on net income. After tax at 45 percent, this implies that the net income credited to EK 45 is 55 percent of 55.33 – i.e. 29.33. This leaves the remainder of the net income – 55 less 29.33 = 25.67 to be allocated to EK 30. A similar procedure is used to allocate foreign-source income between EK 30 and EK 01, where the effective German tax rate is less than 30 percent.

3.2.2.3 Stacking Rules

The rules for the order in which the different categories of profit are deemed to be used for distributions are favourable to the taxpayer. In essence, profits that have borne the highest rate of underlying German corporation tax are deemed to be distributed first. Under current tax rates, this implies that profits from EK 45 are used first.⁶ When that is exhausted, profits from EK 30 are used. When taxed profits have been exhausted, exempt profits are used in ascending category order, i.e. first EK 01, then EK 02, and so on. These rules clearly maximize the refund paid by the authorities on distributions of profits taxed at more than 30 percent, and minimize payment of the equalization tax – which applies only to categories of EK 02 and higher.

There is no limit to the length of time that profits may be left undistributed in each category – in effect, this is an unlimited carry-back provision, in that current dividends can be set against taxable profit arising at any time in the past. However, there is, in effect, no carry-forward provision for the equalization tax. That is, if equalization tax is paid on a distribution from, say, EK 02, there is no provision for it to be subsequently set against profits in, say EK 45, arising in a later period.

3.2.3 Treatment of Shareholders

In principle, only German resident shareholders receive the dividend tax credit. All dividends are also subject to a 25 percent withholding tax, for which resident shareholders also receive a tax credit. Shareholders not entitled to receive the dividend tax credit are generally entitled to a refund of any equalization tax paid by the company; however, this only applies to distributions from EK 02 and above.

3.2.3.1 Resident Shareholders

Resident shareholders pay income tax on dividend income, grossed-up by the dividend tax credit and the withholding tax, for which they receive credit. Any excess credits are refunded to shareholders. Resident shareholders do not receive the dividend tax credit for distributions from exempt foreign-source income (EK 01).

Resident corporate shareholders are treated in the same way as individual shareholders: grossed-up dividends are included in taxable income and taxed at 45 percent, although this would be reduced to 30 percent if the dividends were redistributed. The 45 percent tax rate applies even to income which was paid out of exempt categories, apart from dividends paid out of exempt foreign-source income, which is also exempt in the hands of the company that receives the dividend.

⁶ In fact, companies may have undistributed profits in category EK 50 that have borne tax at 50%; this is used before EK 45.

Exempt entities, including charitable organizations and pension funds, are in general not entitled to receive the dividend tax credit or a credit for the 25 percent withholding tax.⁷ In this case, the withholding tax forms an additional layer of tax in what is, in effect, a classical system.

3.2.3.2 Non-resident Shareholders

Non-resident shareholders are not entitled to receive the dividend tax credit or any credit for the withholding tax. However, the rate of the withholding tax is reduced under most double-tax treaties to 15 percent or less. Following the EU Parent/Subsidiary Directive, the rate of withholding tax on distributions to parent companies within the EU is reduced to zero from July 1, 1996.

It is worth noting that the system of taxing distributions from exempt foreign-source income changed in 1994. Until then, such distributions were liable to pay the equalization tax. Non-resident shareholders could, in principle, claim a refund for the equalization tax. However, this was not available if the income had passed through more than one German company (since it would no longer be included in EK 01). The difficulties in the refund procedure were influential in the 1994 reforms, which resulted in the current system.

3.3 Italy

3.3.1 Basic Operation of the System

Until 1995, Italy operated a full imputation system at the national level, with a corporation tax rate of 36 percent and a dividend tax credit available to shareholders at a rate of 36 percent of the grossed-up dividend. However, in 1995, the corporation tax rate was raised to 37 percent, without any increase in the rate of dividend tax credit. In general, dividends paid out of income that has not borne the full rate of Italian corporation tax is liable to an equalization tax on distribution.

Companies resident in Italy are also liable to local taxes (at a rate of 16.2 percent): since 1992, these have not been deductible from corporation tax. Local taxes do not form part of the imputation system.

3.3.2 Equalization Tax

3.3.2.1 When Equalization Tax is Levied

Various forms of income are not subject to Italian corporation tax at the full rate. For example, income arising in certain areas of Southern Italy is exempt; and there are incentives for the creation of new employment, reinvested income and a lower tax rate for certain newly listed companies. Foreign-source income is taxed in one of four ways, as described in the next section.

⁷ Some exempt entities may receive a partial or complete refund of the withholding tax. Exempt entities can also claim a refund of equalization tax on distributions from pre-1977 profits (before the imputation system was introduced).

Italian companies must allocate their profits into different reserves. There are two main reserves, which, in turn, include income taxed at the full Italian corporation tax rate, and income that has not borne Italian corporation tax.⁸ Profits that have borne a corporation tax rate less than the full rate are divided between the two categories – part of it is deemed to have been fully taxed, and part is deemed to have been tax-exempt.

Income distributed from the reserve which has borne the full corporation tax rate can be distributed without further charge. Distributions from the tax-exempt reserve are liable to the equalization tax at a rate of 36/64 of the distribution, equivalent to a rate of 36 percent on the grossed-up dividend. In principle, this system ensures that any dividends that receive a dividend tax credit have borne the Italian corporation tax at the full rate.⁹

One complication to this rule is a "non-utilized exemption" or *franchigia*, which arises because of the interaction of local tax and corporation tax, and the non-deductibility of other expenses. Out of 100 units of pre-tax income, the corporation tax liability is 37 and the local tax liability is an additional 16.2. Under the imputation system, it is possible to distribute cash dividends of 64 (i.e. 100 less 36 – the rate of tax credit) without incurring an equalization tax. This is made possible in the Italian system by, in effect, crediting the 16.2 of local tax and the additional unit of corporate tax to a fully taxed reserve, from which distributions can be made without incurring equalization tax, and which can be carried forward indefinitely.

3.3.2.2 Treatment of Foreign-Source Income

As noted above, foreign-source income can be treated in one of four ways. First, if the Italian company owns less than 20 percent of the voting rights of the foreign company, income is taxed at the full Italian tax rate, with a direct for foreign withholding taxes paid. If the Italian company owns 20 percent or more of the foreign company, it can claim an *affiliation privilege*, which means that only 40 percent of the foreign-source income is liable to Italian corporation tax; in this case, only 40 percent of the foreign taxes are available as a credit.¹⁰ Third, the *affiliation privilege* is not available for income deemed to have arisen in a privileged tax regime. Fourth, for dividends subject to the EU Parent/Subsidiary Directive, only 5 percent of income from EU subsidiaries is liable to Italian corporation tax.

Foreign-source income that is subject to Italian corporation tax is deemed to have been fully taxed, and can therefore be redistributed without any liability to the equalization tax. This is despite the fact that Italy offers a credit for foreign taxes paid. So it is possible for the effective Italian corporation tax charge on such income to be zero, and for the shareholder to receive a dividend tax credit, without any Italian corporate tax being paid. In these circumstances, Italy is, in effect, refunding foreign taxes paid, up to a rate of 36 percent.

⁸ There are other categories, the main one being income derived before the introduction of equalization tax in 1983.

⁹ Lower rates of equalization tax are imposed on profits benefiting from certain regional incentives. In addition, a lower rate of 15% is charged on pre-1983 profits (the equalization tax was introduced in 1983).

¹⁰ Although, following a recent court case, this point is now under dispute.

The 60 percent of foreign-source income that is exempt under the *affiliation privilege* rules is, however, included in the tax-exempt reserve; redistributions from this income are therefore subject to the equalization tax. Income derived from the EU, which is subject to 95 percent exemption, is not liable to the equalization tax: but on redistribution refunds are not available to shareholders who face a lower rate of income tax than 36 percent. However, Italy does offer the dividend tax credit to tax-paying shareholders: in such cases, the dividend tax credit is, in effect, a credit for underlying foreign taxes (which may be charged at a rate lower than 36 percent); although Italy does not make a refund, in effect, it permits a lower rate of income tax.

3.3.2.3 Stacking Rules

As in other countries, the rules for determining the order in which profits are distributed is favourable to the taxpayer. Distributions are first deemed to be made from fully taxed reserves. Any excess is deemed to be drawn first from EU-source dividends, then from the pre-1983 reserves (which bears a lower rate of equalization tax), and finally from tax exempt sources that incur the full equalization tax.

In essence, this implies that there is an unlimited carry-back provision, in that current dividends can be franked by taxed profits from any preceding period. However, there is no carry-forward provision permitting the equalization tax to be set against subsequent fully taxed profits. This can reduce the benefits of special incentives under the Italian corporation tax: any incentive that temporarily reduces the corporation tax liability, but which triggers the equalization tax may, in effect, be negated.

3.3.3 Treatment of Shareholders

In principle, only resident shareholders are entitled to the dividend tax credit; however, partial credit is available under some double-tax treaties. A withholding tax is imposed on dividend payments at a rate depending on the identity of the shareholder.

3.3.3.1 Resident Shareholders

Resident shareholders are taxed on the grossed-up income, receiving both the dividend tax credit under the imputation system and a credit for a 10 percent withholding tax on the dividend payment. The dividend tax credit can be set against the tax liability arising from the dividend; if the tax credit exceeds the personal income tax liability on the dividend receipt, it can be set against the tax liability arising from other income, carried forward, or refunded. However, as noted above, tax credits on dividends received from EU sources cannot lead to a refund – also they cannot be carried forward. Dividends from EU and non-EU sources must therefore be recorded separately; refunds arising from the rate of the imputation tax credit exceeding the marginal personal income tax rate are available only on the latter. Further, the order in which dividends from the two sources can be used for the purposes of computing a refund is the least

advantageous to the tax payer: that is, excess credits are computed first for EU-source dividends and only then for non-EU-source dividends.¹¹

Dividends form part of the taxable income of Italian companies, but they can use the dividend tax credit to reduce the corporation tax liability to (almost) zero.¹² Companies are also entitled to a refund where there is an excess dividend tax credit (unless, like the situation for personal shareholders, the dividends are derived from EU-source income).

Dividend tax credits are only available where dividends form part of the taxable income of the shareholder. This is not true of tax-exempt entities, who therefore cannot claim the dividend tax credit. They also receive no refund of the dividend withholding tax.

3.3.3.2 Non-resident Shareholders

In general, non-resident shareholders cannot claim the benefit of the dividend tax credit. Also, Italy charges a high rate of withholding tax on the payment of dividends abroad – 32.4 percent – although this is reduced by up to two thirds (i.e. 10.8 percent) if recipient shareholders demonstrate payment of a final tax to their country of residence. Where, under treaty, the withholding tax rate is less than 10.8 percent, no further reduction is permitted. In accordance with the EU Parent/Subsidiary Directive, withholding taxes are not levied on payments of dividends to parent companies in other EU countries.

Some credit is given to non-resident shareholders under some double-tax treaties. The dividend tax credit is available to shareholders in France and the United Kingdom, although only half the credit is available to companies holding a 10 percent interest in the distributing Italian company. A refund of any equalization tax is also available for shareholders resident in France, Germany and the Netherlands.¹³

3.4 United Kingdom

3.4.1 Basic Operation of the System

The United Kingdom operates a partial imputation system, with a corporation tax rate of 33 percent and a rate of dividend tax credit of 20 percent (of grossed-up dividends). The mechanism of operating the system differs from the other three countries considered. In effect, the United Kingdom charges a dividend withholding tax (known as *Advance Corporation Tax* (ACT), which might more accurately be called *Advance Income Tax*). The ACT acts as a prepayment of the income tax of the shareholder – who pays tax on the grossed-up dividend and

¹¹ A category of savings shares was introduced in 1974, where the dividend withholding tax – currently 12.5% – is the final tax. Dividend tax credits are not available for dividends paid on such shares. These dividends are also exempt from the equalization tax.

¹² "Almost" because the rate of the dividend tax credit is 36%, whereas the full corporation tax rate is 37%.

¹³ French shareholders cannot claim both the dividend tax credit and the refund of equalization tax. Where they cannot claim a full dividend tax credit they can instead claim a refund of the equalization tax – this applies to French parents who are specifically denied half the dividend tax credit.

receives a tax credit corresponding to the ACT paid.¹⁴ Tax-exempt resident shareholders – whether individuals or other legal entities – receive a refund of the ACT. In general – although subject to certain conditions – the ACT can also be set against the distributing company's corporation tax liability. ACT not set off against the corporation tax liability is known as *surplus* ACT or *unrelieved* ACT.

In 1994 the UK introduced a special scheme for distributions from foreign-source income, known as *Foreign Income Dividends* (FIDs). This scheme was introduced largely as a result of pressure from U.K.-based multinational companies that rely on high levels of foreign-source income. Since this income is, in general, not available to offset the payment of the ACT, such companies frequently had high levels of surplus ACT. To avoid this problem, the FID scheme permits a refund of ACT at the corporate level, but also prohibits refunds of the dividend tax credit at the personal income tax level. Thus, it is not comparable to the German system, in which there is no equalization tax and no dividend tax credit; rather, like the Italian treatment of EU-source dividends, shareholders who are not exempt from paying income tax continue to receive the tax credit.

3.4.2 Equalization Tax

3.4.2.1 When equalization tax is levied

The U.K. imputation system differs from those in the other three countries, in that there is no special equalization tax that applies to dividends paid out of income that has not been fully taxed. However, a broadly similar effect is created by charging tax – ACT – on *all* dividend distributions (net of dividends received), which is therefore in effect a withholding tax on dividends. The rate is 20 percent on the grossed-up dividend, or 20/80 (i.e. 25 percent) of the cash dividend. In general, the ACT can be credited against corporation tax paid. To be fully offset, ACT of 20 units requires 100 units of taxable profit. Thus, the corporation tax liability on the 100 units of 33 is reduced to a *mainstream corporation tax* liability of 13, after offsetting the ACT. If the ACT is fully offset, the total tax paid by the company is 33 – the same as if ACT had not been charged at all.¹⁵ In this case, dividends are, in effect, paid out of current taxable profits (since the ACT charge is no greater than 20 percent of taxable profit).

However, there are occasions when the ACT cannot be fully offset against the corporation tax liability of the current year. (This was especially true before 1984, when tax allowances were particularly generous, implying that many companies had negative taxable profits). Suppose, for example, that current taxable profits were only 60 units: the full corporation tax charge would be approximately 20. If a cash dividend of 80 units were paid, then the ACT would also be 20. Yet the maximum amount of ACT that could be offset is 20 percent of 60, i.e. 12. In this case, there would be a total tax charge of 28, consisting of ACT of 20, and a mainstream corporation tax

¹⁴ This might be seen as a controversial view. In terms of overall tax liabilities, it clearly does not matter whether the ACT is labelled as a prepayment of income tax or a minimum tax on dividends. But since it applies to dividends, it is clearly *not* a minimum tax on profits.

¹⁵ There is a timing difference: the ACT is charged quarterly on dividends paid in each quarter. ACT payments are accumulated and offset against the annual corporation tax liability (due nine months after the accounting year end).

liability of 8; this implies *surplus* ACT of 8. In practice, surplus ACT can be set against taxable profits in any of the preceding six years (on a LIFO basis) and can be carried forward indefinitely to set against future taxable profits.

In effect, surplus ACT plays the same role as the equalization tax in the other countries considered. However, (apart from the FID scheme discussed below) there is no need within the U.K. system to record separately different sources of profit and the rates of tax that have been paid.

3.4.2.2 Treatment of Foreign-Source Income

The United Kingdom taxes worldwide income, but offers both a direct and indirect tax credit for foreign taxes paid. Credits are available only on an item-by-item basis – so that excess credits from one source cannot be used to reduce corporation tax on income from another source.

For dividends paid out of foreign-source income that are not declared as FIDs, the ACT liability cannot be offset against domestic source taxable income. Instead, a separate limitation applies to set the ACT against foreign-source income. ACT set against each slice of foreign income is limited to the lesser of ACT which would be levied if foreign income were distributed and the corporation tax liability with respect to such income after deducting foreign tax relief. Dividends distributed from foreign-source income that are not declared as FIDs give rise to dividend tax credits in the hands of shareholders in the same way as other dividends.

However, from 1994, U.K. companies have been allowed to elect whether to treat dividend payments as FIDs. FIDs must be matched to foreign-source income, and records of such income and the use made of them must therefore be kept. To be declared FIDs, dividends may only be matched with foreign-source income from the current accounting year or the previous year.¹⁶ ACT is also payable on net FIDs paid (i.e. FIDs paid less FIDs received); any excess ACT credit on FIDs received can be carried forward to set against future FID payments. Any surplus ACT arising from the payment of FIDs can be repaid to the company or set against any corporation tax liability. In effect, this means that FIDs are not liable to surplus ACT, which is equivalent to being exempt an equalization tax.

3.4.2.3 Stacking Rules

The U.K. imputation system does not, in general, require complex rules to determine the order in which profits are distributed. This is because the amount of ACT which can be set against corporation tax is determined primarily through the size of the corporation tax liability, rather than the form of profits. However, there are implicit stacking rules: for example, dividends received from other U.K. companies are netted out in determining the ACT liability; and ACT cannot be offset against profits made more than six years previously.

In addition, under the FID scheme, FIDs may be distributed before other dividends.

¹⁶ They may also be matched with the foreign income of 51% U.K. subsidiaries.

3.4.2.4 Exceptions to General Practice

A timing relief is given to international headquarter companies with respect to ACT due on net FIDs paid. In this case, the ACT is not levied on a quarterly basis, but on an accounting year basis.

3.4.2.5 Other issues

The United Kingdom has a "small companies" rate of corporation tax, equal to the basic rate of income tax (24 percent for 1996-97), which is charged on companies with profits of less than £300,000. The tax rate increases gradually up to 33 percent, as profits increase to £1.5 m. This does not affect the imputation system, except to the extent to which it is closer to a full imputation system for companies with low profits. That is, an additional £100 of taxable profit is still required to offset fully £80 of cash dividends. In this case, however, the ACT of £20 can be offset against only £24 of corporation tax liability, leaving a mainstream corporation tax liability of only £4.

3.4.3 Treatment of Shareholders

3.4.3.1 Resident Shareholders

Resident individual shareholders are liable to income tax on grossed-up dividend receipts at their marginal income tax rates. The ACT paid by the company is, in effect, a dividend tax credit that offsets the income tax liability. Tax-exempt shareholders, whether individuals or some other form of entity are entitled to a refund of the tax credit. The only exception to this rule is for dividends classified as FIDs: tax-paying shareholders are treated in the same way as for other dividends (that is, they are taxed on the grossed-up dividend and are deemed to have paid tax at the ACT rate), but no rebates are paid to tax-exempt shareholders.

Corporate shareholders use the tax credit to frank their own dividend payments: thus, ACT is levied only on *net* dividends paid. If dividends received exceed dividends paid, then the ACT not used can be carried forward to set against future dividend payments. In addition, where the company has a tax loss, it can instead set the excess ACT against its current loss and claim a refund. FIDs are exempt from corporation tax, but also cannot be used to frank dividend payments.

3.4.3.2 Non-resident Shareholders

The United Kingdom has extended the dividend tax credit to non-resident shareholders under a number of double tax treaties. The full tax credit is usually only available on portfolio investment, and sometimes only to individual shareholders. However, a common arrangement is that direct investors receive half of the dividend tax credit, but must pay a withholding tax of 5 percent of the grossed-up dividend.

4. The Economic Impact of Minimum Taxes on Dividends

There is a large economic literature on the impact of taxes on capital income on the behaviour of economic agents. In particular, the impact of corporation tax on the investment and financial decisions of firms has been examined in numerous theoretical and empirical studies (for a recent survey of this literature, see Mintz (1995)). Within this literature, a reasonable amount of attention has been paid to the impact of imputation systems and other forms of integration of corporate and personal taxes. However, the impact of minimum taxes on dividends – the equalization taxes discussed above – has not figured very prominently in the economic literature; although there have been several studies, referred to below.

This section briefly explores three aspects of minimum taxes and integration systems more generally. First, it examines the role played by the minimum taxes within the imputation systems considered in the previous section. In particular, we discuss the issue of how vital a minimum tax is to the working of these systems. Second, we set out very briefly a theoretical analysis of integration systems and the role played by minimum taxes in affecting economic behaviour. Third, the role of integration systems is itself questioned: what benefits are there from implementing tax relief on dividend payments as opposed to some other form of tax system?

4.1 The Role of Minimum Taxes on Imputation Systems

The usual argument in favour of some form of integration of corporate and personal taxes on capital income is derived from one possible "ideal" form of taxation: the comprehensive income tax. The idea of a comprehensive income tax is that all income accruing to any individual should be combined and taxed at the same rate (or at least on a single schedule of rates). One advantage of such a tax is that there will be no discrimination between different forms of capital income: different forms of saving will be taxed at the same rate. On the other hand, since capital income is taxed, the net of tax rate of return to saving will be lower. This is likely to induce a lower rate of saving. Whether this is suboptimal for the economy as a whole from the viewpoint of economic efficiency, however, depends on the remainder of the tax system – for example, how labour income is taxed. We return to this discussion below.

However, if the aim is comprehensive income taxation, then there are many practical problems. One important problem is how to deal with profits arising in a corporation, which strictly belong to the owners or shareholders of the corporation. It is generally considered infeasible to tax an individual shareholder on his or her share of the corporation's profits; apart from the difficulty of assessing the level of profit (for shareholders, for example, who constantly turn over their shareholdings), there is also a problem of liquidity; that is, individual shareholders may have to sell their assets to comply with the tax liability.

To avoid this, most countries operate a separate tax on corporate profits. If the rate of corporation tax is roughly the same as the personal tax rate, then in the absence of personal taxes on income derived from the corporate sector, the tax system may be close to a comprehensive income tax. However, if personal taxes are levied on dividend receipts and capital gains on shares, there will be a "double taxation" of corporate-source income. The imputation systems described above avoid this double taxation by offering a dividend tax credit which, in effect, reimburses the

shareholder for at least part of the tax paid at the corporate level. A full imputation system is then consistent with the comprehensive income tax, at least for distributed earnings: the total tax liability depends on the shareholder's personal income tax rate. Retained earnings are taxed at the corporate rate, although this may be adjusted when the earnings are eventually distributed.

There is a role for a minimum tax in an imputation system because shareholders receive a tax credit representing tax paid at the corporate level. But some corporate income is not fully taxed at the corporate level. If it were distributed to shareholders with an associated dividend tax credit, then shareholders would receive a credit that was in excess of taxes already paid. That would imply that the rate of tax charged would be less than their personal income tax rate. For zero-rated shareholders, there may be a negative amount of tax paid – the government would be subsidizing the activity. An examination of the Appendix reveals that there are several cases in the countries examined where this can occur.

The minimum tax is designed to avoid this. In its simplest form, it merely ensures that dividends that carry a tax credit are paid out of income that has been fully taxed at the corporate level. There are many items of corporate income that may not be fully taxed – for example, capital gains. However, the most important is foreign-source income, which countries typically either exempt from corporation tax or include in taxable income but give a credit for foreign taxes paid on the underlying income. One method of ensuring that the *domestic* rate of tax on such income (net of foreign tax) is equal to the shareholder's income tax rate, is to charge a minimum tax on the redistribution of the income by the domestic company – referred to as an equalization tax in the previous section. The shareholder can then claim credit for this tax against his personal income tax liability.

However, a more straightforward way of achieving the same result is the system that Germany instituted in 1994: no minimum tax is levied, but the shareholder does not receive a dividend tax credit. In the German case, there is no corporate-level tax, but shareholders are liable to personal income tax on the redistributed income. In principle, this is a simpler system: rather than levying an equalization tax and refunding it to shareholders, neither of these taxable events occurs.

The important point of principle is that the minimum tax itself is *not* a fundamental requirement of a system of integrating corporate and personal taxes, even one that aims to mirror as closely as possible a comprehensive income tax.¹⁷ It is true that the German system works only for income that has paid no tax at the corporate level. Under the U.K. system, for example, foreign source income may well face a residual U.K. corporate tax charge. On redistribution of the income, a comprehensive income tax would require the shareholder to be given credit for the amount of U.K. tax paid. But in the absence of a system that identified the rate of corporate-level tax paid on each part of the dividend payment, some adjustment must be made at the corporate level. One such adjustment would be imposing a minimum tax sufficient to raise the corporate-level tax to the full rate. However, there are other means of achieving the same outcome. The U.K. system does so by not permitting a refund of ACT against corporation tax. The German system would divide the taxed profit into two parts, allocating one part to a fully taxed reserve and the

¹⁷ Whether the German system of taxing foreign-source income should be referred to as an *imputation* system is perhaps questionable.

remainder to a tax-exempt reserve. In principle, the latter could be distributed without a minimum tax and without a dividend tax credit.

4.2 Integration Systems and Minimum Taxes in Economic Theory

There is a considerable body of literature, dating back at least to King (1977), which investigates the role of integration systems on economic behaviour, primarily of corporations. The main types of behaviour investigated are investment, the type of finance used for investment and dividend policy. However, there is also work on, for example, the impact of tax on merger activity. There is not space in this paper to adequately summarize this literature. Instead of attempting to do this, this section simply gives a flavour of some of the more important issues.

One important and well-known result in the theoretical literature is that the cost of capital of investment financed by retained earnings – and hence probably such investment itself – is not affected by the taxation of dividends. The reason for this is straightforward. When an additional unit of profit is retained within the company, the shareholder, in effect, gives up a net income of $1-d$ units, where d is his personal income tax rate on dividends (adjusted for any dividend tax credit). When a return – at a rate of return of, say r – is made on the investment and distributed to the shareholder, the shareholder receives a net return of $r(1-d)$. On an investment of $1-d$, the rate of return earned by the shareholder is therefore simply r : The dividend tax is irrelevant.

The same is not true of investment financed by new equity, however. Here the net cost to the shareholder is one unit, not $1-d$ units; hence, the rate of return is $r(1-d)$, and the dividend tax does matter. Under an imputation system, the rate of dividend tax, d , can be divided into two parts. For every unit of dividend paid, the shareholder can gross it up at the dividend tax credit rate – say c – before being taxed at his personal income tax rate – say m . In this case, his net income, $1-d$ is equal to $(1-m)/(1-c)$. Clearly, as the rate of imputation credit, c , increases, the net rate of return of investment financed by new equity also rises.

These results have been analysed in the presence of the minimum tax as operated by the U.K. tax system by Mayer (1986), Keen and Schiantarelli (1991) and Devereux, Keen and Schiantarelli (1994). One important conclusion is that the simple result of the irrelevance of dividend taxation for investment financed by retained earnings may no longer hold. The reason is again straightforward: it is that the effective rate of tax on dividend payments may change over time: in this case, the impact on the net cost to the shareholder may be different from the impact on the net benefit. The same result would hold under most of the other systems discussed at length in this paper.

Consider just one possibility from the United Kingdom, for example: that the company fully offsets all of its ACT against corporation tax in the year in which the investment is made, but subsequently cannot do so (i.e. it has surplus ACT). In this case, the net cost to the shareholder of the unit of investment financed by retained earnings is $(1-m)/(1-c)$. However, if the firm is subsequently in a permanent surplus ACT position, then in effect the shareholder cannot benefit from the dividend tax credit, since that simply offsets the additional minimum tax (surplus ACT) that the firm must pay. In this case, the net return to the shareholder is $r(1-m)$, which represents a

rate of return on the initial investment of $r(1-c)$, rather than r . If the tax positions were reversed, the net rate of return would exceed r .

The minimum tax can also affect the dividend payout decision. One apparently obvious effect is an effect on the relative benefit to the shareholder of receiving a dividend relative to a capital gain (achieved by an increase in the share value, since less is distributed). If paying an extra unit of dividend incurs an additional tax liability then it becomes relatively less attractive compared with retained earnings. The impact of this effect on behaviour is, however, controversial. If the profit must eventually be distributed then the shareholder's valuation of the retention should reflect the eventual dividend payment. But in that case it should reflect the tax that must eventually be paid on the dividend. Also, if the tax rate on the dividend is not expected to change, then it is argued that the dividend tax should have no impact on the pay-out decision.

This argument has parallels with the argument that the dividend tax does not affect the cost of capital for investment financed by retained earnings. And the impact of the minimum tax is similar. As long as there are periods where the minimum tax is levied, and other periods in which it is not levied, then it can affect the allocation of dividend payments over time. In effect, companies facing a minimum tax liability would delay dividends until a later period in which there was no such liability. This effect has been found in an examination of U.K. companies moving in and out of periods of surplus ACT (Bond, Chennells and Devereux, 1996).

The impact of integration systems has also been examined in an international context. One important issue here is the extent to which an integration system can affect domestic investment, as opposed to outward foreign direct investment (FDI). Boadway and Bruce (1992) argue that an integration system would not affect domestic investment, even for investment financed by new equity. Their argument depends on identifying the marginal shareholder of the company – one who is just indifferent between owning and not owning the share. It is the marginal shareholder who, in effect, determines the value of the companies' shares.

Consider the introduction of an imputation system of the form described in the previous section, where the dividend tax credit is received only by residents. The dividend tax credit would increase the rate of return on investment in the company for domestic residents, but would not affect the rate of return for non-residents. However, if a non-resident is the marginal shareholder, then the company will perceive that the required rate of return on its investment has not changed. It may be the case that domestic shareholders wish to invest more in the company. But if the company used these additional funds to invest domestically, it would drive down the rate of return, which in turn would drive away non-resident investors. The company is therefore likely instead to use the additional funds to invest abroad at the "world" interest rate, which is unaffected by the additional investment. In this case, the impact of introducing the imputation system is to increase domestic savings, which are then channelled into outward FDI, with no effect on domestic investment.

Of course, this is a highly simplified model of the real world, and it is possible to examine other assumptions regarding the identity of the marginal investor and the nature of the integration system (see Devereux and Freeman, 1995). Changing the assumptions gives a wider understanding of some of the likely impacts of introducing an imputation system. However, the basic point is important – that the diversity across the treatment of different forms of income and

different types of shareholders evidenced in the four tables in the Appendix is likely to have real economic effects. Some types of activity are likely to be favoured over others – and the choice between domestic investment and outward FDI is likely to be important. Also, some types of shareholders are likely to be favoured over others – with repercussions, for example, on the size of inward foreign investment, both portfolio and direct.

4.3 Are Integration Systems Optimal?

One final issue is whether the comprehensive income tax principle is the most appropriate model for taxing capital income. As already mentioned, taxing the return to saving is likely to reduce the level of saving. However, this might be offset by beneficial effects elsewhere in the tax system and the economy. A more persuasive argument against the comprehensive income tax principle is probably the practicality of administration. That is, it is virtually impossible to administer a full comprehensive income tax. Allocating corporate profits to shareholders is only one problem in such a system. More fundamental problems arise in taxing the increase in the value of other assets owned by the taxpayer – for example, a house, a Rembrandt, and most difficult of all, his human capital. A comprehensive income tax requires, in principle, that all of these assets are valued in each period and that tax is charged on the increase in their value. Not only is valuation extremely difficult, if not impossible, it is quite possible that the taxpayer will not have liquid assets available to pay the tax charge.

The other main "ideal" form of tax system is one based on consumption. Under such a tax, the return to saving would not be taxed. There are several ways in such a system could be administered – see, for example Meade (1978) and Economic Council of Canada (1987). In the context of corporation tax, the most well-known way of implementing a consumption tax is a cash flow tax. The idea is simple: all cash flows, positive and negative, are taxed at the same rate. In effect, the government becomes a sleeping partner in the company, contributing a proportion of all expenses, but taking a share of all profits. Under this system, the normal rate of return on investment is not taxed; this is consistent with the return to saving being untaxed. However, any profit over and above the normal return – known as the economic rent or supernormal profit – is taxed. One advantage of this type of tax is that investment and financing decisions of the company are unaffected by tax. The cash-flow tax would not be integrated with the personal tax system, so all the considerations of a minimum tax would be swept away.

An alternative method of achieving the same result, but without the government contributing so much up front for investment projects is the ACE (Allowance for Corporate Equity) system, proposed by the Institute for Fiscal Studies Capital Taxes Group (1991), analysed by Devereux and Freeman (1991) and Bond and Devereux (1995), and based on work by Boadway and Bruce (1984). Essentially, this permits an allowance for equity-financed investment comparable to interest deductibility, which is available for debt finance. It too would not be integrated with the personal tax system, and so again, minimum taxes are unnecessary.

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Appendix

Illustrative Examples of the Impact of Imputation Systems in the Four Countries

1. France

Net Income to Shareholder of Fully Distributed 100 Units of Profit Before French Tax¹

Ultimate shareholder	Source of Income			
	Domestic-source income fully taxed at corporate level	Domestic-source income untaxed at corporate level	Foreign-source income of 100% subsidiary: foreign-corporation tax rate 50%; withholding tax rate 10% ²	Foreign-source income of 100% subsidiary: foreign tax rate zero; withholding tax rate 10% ²
Domestic individual: tax rate 40%	60	60	$66\frac{2}{3}$ ³	$66\frac{2}{3}$ ³
Domestic individual: tax rate zero	100	100	111 ⁴	111 ⁴
Tax-exempt entity	$66\frac{2}{3}$	$66\frac{2}{3}$	74 ⁵	74 ⁵
Non-resident from treaty country ⁶	$56\frac{2}{3}$	$56\frac{2}{3}$	63	63

¹ The French 10% surtax is excluded from this table.

² Assume that the company claims the benefit of the *affiliation privilege*.

³ As in the next line, except that the shareholder must pay income tax at 40% on the grossed-up dividend of 111.

⁴ The net income to the shareholder is $D/(1-c)$ where D is the cash dividend and c is the rate of tax credit.

The equalization tax charge (E) is net of credit for the withholding tax (W) of 11 (10% of 111).

$E+D = 100$; $E = cD/(1-c) - W$. So $D = 111(1-c)$ and the net income is 111.

France effectively rebates the foreign withholding tax.

⁵ As the previous line, except that the shareholder cannot claim the dividend tax credit. The net income is therefore equal to the cash dividend, D.

⁶ Assume a 15% withholding tax on the payment of dividends to the non-resident.

2. Germany

Net Income to Shareholder of Fully Distributed 100 Units of Profit Before German Tax

Ultimate shareholder	Source of Income			
	Domestic-source income fully taxed at corporate level	Domestic-source income untaxed at corporate level	Foreign-source income of 100% subsidiary: foreign-corporation tax rate 50%; withholding tax rate 10% ¹	Foreign-source income of 100% subsidiary: foreign tax rate zero; withholding tax rate 10% ¹
Domestic individual: tax rate 40%	60	60	60	60
Domestic individual: tax rate zero	100	100	100	100
Tax exempt entity	45 ²	45	75 ³	75 ³
Non-resident from treaty country ⁴	55	55	85	85

¹ Assume that the foreign-source income is exempt from the German corporation tax.

² The cash dividend distributed is 70: a withholding tax at 25% of the grossed-up dividend is charged. Neither the dividend tax credit nor the withholding tax can generally be claimed by tax-exempt entities.

³ In this case, equalization tax is not paid, so the cash dividend is 100, less the 25% withholding tax.

⁴ Assuming a 15% withholding tax on the payment of dividends to the non-resident.

3. Italy

Net Income to Shareholder of Fully Distributed 100 Units of Profit Before Italian Tax

Ultimate shareholder	Source of Income			
	Domestic-source income fully taxed at corporate level	Domestic-source income untaxed at corporate level	Foreign-source income of 100% subsidiary: foreign-corporation tax rate 50%; withholding tax rate 10% ¹	Foreign-source income of 100% subsidiary: foreign tax rate zero; withholding tax rate 10% ¹
Domestic individual: tax rate 40%	44 ²	60 ³	74 ⁴	62
Domestic individual: tax rate zero	73 ⁵	100	123 ⁶	104 ⁷
Tax-exempt entity	29 ⁸	38 ⁹	48 ¹⁰	40 ¹¹
Non-resident from treaty country ¹²	42	56	70	59

¹ Assume that company claims the *affiliation privilege*, so that 60% of the foreign-source income is exempt from the Italian corporation tax; the remaining 40% is taxed and receives a tax credit of up to 40% of the foreign taxes paid.

² Assuming that the cash dividend is 100 less 37 corporation tax less 16.2 local tax. The cash dividend is grossed up by the tax credit at 36% and taxed at the personal tax rate.

³ Assuming that there is no local tax charge: equalization tax at rate 36% is levied, which is also credited to the shareholder as a dividend tax credit.

⁴ As the following line, but with the grossed-up dividend taxed at 40% in the hands of the shareholder.

⁵ As footnote 2, except that there is no income tax liability and the shareholder claims a refund for the dividend tax credit. The dividend tax credit is available only at 36%; profits are taxes at 37%.

⁶ 40% of the foreign-source income is in principle taxable, but the credit for foreign tax eliminates any corporation tax. Distributions from the 40 are not liable to equalization tax, but the shareholder receives the dividend tax credit, so that the shareholder receives 62.5 post-tax. The remaining 60% is exempt from the corporation tax, but is liable to equalization tax on redistribution. This is worth 60 to the shareholder post-tax.

⁷ The corporation tax charge is 37% of 40% of the pre-withholding tax distribution of 111.11, less a credit for 40% of the withholding tax of 11.11, implying that corporation tax is 12. This implies that a cash dividend of 28 can be distributed, which is worth 43.75 with the dividend tax credit. Adding the 60 of income-exempt corporation tax gives a total of 103.75.

⁸ As footnote 2, except that a withholding tax at 25% of the grossed-up dividend (25% of 73.125 i.e. 18.28) is charged. Neither the dividend tax credit nor the withholding tax can generally be claimed by tax-exempt entities. The net income is therefore the cash dividend less the withholding tax.

⁹ As footnote 8, except that assume that there is no local tax.

¹⁰ As footnote 6, except that the tax exempt entity does not receive the dividend tax credit and must pay the withholding tax. The two parts of the cash dividend are 40 and 38.4 respectively. The withholding tax is 25% of the grossed up dividend of 122.5 i.e. 30.625. Net income is therefore 47.775.

¹¹ A combination of the rules in footnotes 7 and 10.

¹² Assume that the non-resident receives the net dividend, with no dividend tax credit, and faces a 10.8% withholding tax on the net dividend.

4. United Kingdom

Net Income to Shareholder of Fully Distributed 100 Units of Profit Before U.K. Tax

Ultimate shareholder	Source of Income			
	Domestic-source income fully taxed at corporate level	Domestic-source income untaxed at corporate level	Foreign-source income of 100% subsidiary: foreign-corporation tax rate 50%; withholding tax rate 10% ¹	Foreign-source income of 100% subsidiary: foreign tax rate zero; withholding tax rate 10% ²
Domestic individual: tax rate 40%	50 ³	50	75 ⁴	58 ⁵
Domestic individual: tax rate zero	84 ⁶	84	100 ⁷	96 ⁸
Tax-exempt entity ⁹	100	100	100	96
Non-resident from treaty country ¹⁰	71 ¹¹	71	100 ¹²	82 ¹³

¹ Assume that the redistributed dividend is treated as a FID.

² Assume that the redistributed dividend is not treated as a FID.

³ As footnote 6, except that the shareholder pays income tax at 40% on the grossed-up dividend of 83.75, yielding a net income of 50.25.

⁴ As footnote 7, except the net dividend of 100 is grossed up to 125, leaving the net income of a 40% income tax payer of 75.

⁵ As footnote 8, except the net income of the shareholder after income tax is 60% of 96.25, yielding 57.75.

⁶ 100 units of profit incur 33 units of corporation tax. Distributing a net dividend of the remainder - 67 - incurs ACT of 16.75, and hence the grossed-up dividend is 83.75. This is the net income of the tax exempt shareholder.

⁷ Given the foreign tax paid, there is no residual U.K. corporation tax liability. Assuming the income is redistributed as a FID, and that the ACT paid is refunded to the company, the company can pay a net dividend of 100; this represents the final net income of all tax-exempt shareholders.

⁸ In this case, the U.K. corporation tax charge is 33% of 100, less a tax credit of 10, i.e. 23. This leaves 77 as a net dividend payment. Assuming that this is not distributed as a FID, this implies an ACT charge of 19.25, which is offset against corporation tax to leave a mainstream corporation tax charge of 3.75. The gross dividend is 96.25, which is the net income of tax-exempt shareholders.

⁹ The U.K. tax system does not distinguish zero-rated individual shareholders and tax-exempt entities. Hence, this row is identical to the row above.

¹⁰ Assume a direct investor, who receives half the dividend tax credit, but pays a 5% withholding tax on the grossed-up dividend.

¹¹ As footnote 6, except that the non-resident shareholder receives a half tax credit of 10% of the grossed-up dividend (8.375), but must pay a withholding tax of 5% of the grossed-up dividend (4.1875), so that the net income (before foreign tax) is 71.1875.

¹² Assuming that the non-resident shareholder faces no U.K. tax liability on the dividend, the net income is simply the net dividend: no withholding tax is levied, and the shareholder is not entitled to a dividend tax credit.

¹³ As in footnote 11, except that the net dividend is now 77, rather than 67. The net income of the shareholder after adding the half dividend tax credit and subtracting the withholding tax is 81.8125.

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

Mr. Robert Brown
Price Waterhouse
Toronto, Ontario

Mr. James Cowan
Stewart McKelvey Stirling Scales
Halifax, Nova Scotia

Mr. Wilfrid Lefebvre
Ogilvy Renault
Montreal, Quebec

Professor Nancy Olewiler
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Simon Fraser University
Burnaby, British Columbia

Mr. Stephen Richardson
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Professor Bev Dahlby
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University of Alberta
Edmonton, Alberta

Mr. Allan Lanthier
Ernst & Young
Montreal, Quebec

Professor Jack Mintz (Chair)
Faculty of Management,
University of Toronto (on leave)
Clifford Clark Visiting Economist
Department of Finance
Ottawa, Ontario

Mr. Norm Promislow
Buchwald Asper Gallagher Henteleff
Winnipeg, Manitoba

The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

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Ottawa, Ontario K1A 0G5
Telephone: (613) 995-2855
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They are also available on the Internet at <http://www.fin.gc.ca/>

Technical Committee on Business Taxation Completed Research Studies

- ☐ **WORKING PAPER 96-1**
Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States
Brian Arnold (Goodman Phillips & Vineberg)
Jinyan Li and *David Sandler* (University of Western Ontario)
- ☐ **WORKING PAPER 96-2**
Why Tax Corporations
Richard Bird (University of Toronto)
- ☐ **WORKING PAPER 96-3**
Tax Policy and Job Creation: Specific Employment Incentive Programs
Ben Cherniavsky (Technical Committee Research Analyst)
- ☐ **WORKING PAPER 96-4**
The Effects of Taxation on U.S. Multinationals and Their Canadian Affiliates
Jason Cummins (New York University)
- ☒ **WORKING PAPER 96-5**
The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments
Michael Devereux (Keele University)
- ☐ **WORKING PAPER 96-6**
International Implications of U.S. Business Tax Reform
Andrew Lyon (University of Maryland)
- ☐ **WORKING PAPER 96-7**
The Economic Effects of Dividend Taxation
Ken McKenzie (University of Calgary)
Aileen Thompson (Carleton University)
- ☐ **WORKING PAPER 96-8**
Capital Tax Issues
Peter McQuillan and *Cal Cochrane* (KPMG Toronto)
- ☐ **WORKING PAPER 96-9**
Compliance Issues: Small Business and the Corporate Income Tax System
Robert Plamondon (Ottawa)
- ☐ **WORKING PAPER 96-10**
Study on Transfer Pricing
Robert Turner (Ernst & Young, Toronto)
- ☐ **WORKING PAPER 96-11**
The Interaction of Federal and Provincial Taxes on Businesses
Marianne Vigneault (Bishop's University)
Robin Boadway (Queen's University)
- ☐ **WORKING PAPER 96-12**
Taxation of Inbound Investment
Gordon Williamson (Arthur Andersen, Toronto)

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Publications

International Implications of U.S. Business Tax Reform

Andrew B. Lyon
University of Maryland

December 1996

WORKING PAPER 96-6

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

International Implications of U.S. Business Tax Reform

Andrew B. Lyon
University of Maryland

December 1996

WORKING PAPER 96-6

Prepared for the
Technical Committee on Business Taxation

Comments on the working papers are invited and may be sent to:

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Abstract

This paper examines the effects of recent tax law changes in the United States and the potential for fundamental tax reform to alter the incentives facing businesses in their real and financial behaviour. After first providing an overview of the tax system of the United States, the paper examines the changes enacted as part of the 1986 *Tax Reform Act* affecting business taxation at both the domestic and international level. These tax changes are shown to affect locational choices for real investment, the reported location of profits resulting from the use of transfer prices, and the financial choices of multinational corporations in their use of debt. Despite predictions that the U.S. tax changes would result in a significant increase in the excess foreign tax credits of U.S. multinationals, nearly contemporaneous reductions in the statutory tax rate in other countries has minimized the effects of the U.S. tax rate reduction.

The paper considers three different proposed reforms of the U.S. tax system that would replace the income tax with a tax based on consumption. The proposals (a retail sales tax, the Hall-Rabushka flat tax, and the USA personal expenditure tax), by exempting from taxation the marginal return to new investment, would make the United States a very attractive location for multinational corporations relative to current law. Further, the generally low statutory tax rate applying to business rents under these proposals would give strong incentives for corporations to engage in aggressive transfer pricing to relocate earnings to the United States.

Although the motivation for U.S. tax reform today, as in 1986, is largely independent of international concerns, the proposed consumption-tax reforms may make the United States a more attractive location for multinational corporations than currently. If the United States does adopt such reforms, other industrialized countries will face many pressures to adopt similar reforms.

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1. Introduction

The 1994 Congressional elections, which shifted control of Congress to the Republican party for the first time in over 40 years, and the 1996 Presidential campaign have reawakened interest in substantial reform of the U.S. federal income tax system. At the same time, growing bipartisan concern over the federal deficit has led President Clinton and the Congress to propose changes to current policy that would balance the federal budget by 2002. Even if such legislation were enacted, however, the United States faces significant deficits beginning about 2010 as the baby-boom generation approaches retirement. The Congressional Budget Office (1996) has estimated that under current policies, the federal deficit will increase from about 2 percent of gross domestic product (GDP) in 1995 to 3 percent in 2005. As the baby-boom generation enters its retirement years, increases in federal spending for social security retirement benefits and Medicare health spending on the elderly will cause the deficit to increase dramatically. Without other changes in government policies, the deficit is predicted by CBO to increase to 5 percent of GDP in 2010, 11 percent in 2020, and 37 percent in 2030. Clearly, such large deficits are not sustainable. Interest payments alone by 2030 would comprise 31 percent of GDP.

Government policy in the next 10 years is unlikely to be static. The pressures of these large future deficits may significantly change the structure of U.S. taxation, and bring about large changes in the funding of retirement and health programs. Much of the current debate about changes in the structure of U.S. taxation, however, such as proposals for a replacement of the current U.S. income tax system with a value-added tax or a flat-rate tax system, appear to be motivated for reasons unrelated to the future U.S. fiscal imbalance. Concern for a simpler and more efficient tax system continues, despite the many changes brought about by the 1986 *Tax Reform Act*. Reform efforts have largely focussed on "revenue-neutral" changes, or even a switch to a new tax base that might entail a revenue loss for the federal government. Recognition of these large future fiscal imbalances, however, increases the possibility that a new tax may *supplement* rather than replace the current tax system. While the focus of this paper is on tax structure, it should be noted that if the U.S. government fails to address its long-run budget problems, the effects of the ensuing deficits would have far greater international implications than any revenue-neutral change in U.S. tax structure.

This paper examines the current U.S. taxes on business and leading proposals for reform. The next section provides a summary of the broad framework of the U.S. tax system. Section 3 points out the declining role of corporate taxes in this framework. Section 4 outlines the important changes made to corporate taxation by the *Tax Reform Act* of 1986. The effect of these changes on corporations, and in particular on multinational corporations, is examined in Section 5. Section 6 examines the three leading consumption tax proposals in the United States, and considers the international implications of their adoption. The final section offers some concluding remarks.

2. A Brief Overview of the U.S. Tax System

Tax and spending power is shared between the federal government and state and local governments. The federal government collects approximately 65 percent of all revenues, with state and local governments collecting the remainder. Matching and unconditional grants from the federal government to state and local governments have historically provided about 20 percent of state and local resources. Congress is currently in the process of reconsidering the form in which many of these grants to local governments are provided.

Federal, state, and local revenues in the United States totalled \$2.27 trillion in 1995, or 31 percent of GDP. Governmental expenditures in 1995 totalled \$2.34 trillion, resulting in a combined governmental deficit of \$67.6 billion. The federal government deficit of \$162.6 billion in 1995, or 2.2 percent of GDP, was offset by a \$95-billion surplus of state and local governments.¹

The tax systems of the three levels of government are quite different. At the federal level, personal taxes and social insurance taxes comprise over 80 percent of all federal revenues. Figure 1 shows the contributions made by the different revenue sources in 1995 to federal receipts.

The federal personal income tax consists of five explicit statutory tax rates ranging between 15 percent and 39.6 percent. Two special features – a phase-out of personal exemptions and a limitation on itemized deductions – increase the effective marginal tax rate of higher-income taxpayers from 1 to 4 percentage points. As a result, the effective marginal tax rate on incomes in excess of \$200,000 is about 40 to 41 percent.² In 1992, 72 percent of taxable returns were in the 15 percent tax bracket. These taxpayers accounted for one third of taxable income.³

Federal social insurance taxes are primarily collected from a 15.3-percent payroll tax, which finances the social security retirement and disability programs (Old Age, Survivors and Disability Insurance, or OASDI) and a portion of the Medicare hospital insurance program (HI) for persons aged 65 and older. The OASDI payroll tax rate is 6.2 percent levied on a fixed-dollar amount of employee wages. Tax is paid by both the employee and employer (resulting in a 12.4 percent combined rate). In 1995, the first \$61,200 in wages were subject to the OASDI tax. The wage base is indexed annually for the growth in wages. The HI tax is 1.45 percent of all employee wages, collected from both the employee and the employer (resulting in a 2.9 percent combined rate). The employer's portion of both the OASDI tax and the HI tax is deductible from the taxable income of the employer.

Corporate income taxes in 1995 represented 10.9 percent of federal tax receipts. The corporate income tax rate schedule is graduated with primary rates of 15 percent, 25 percent, 34 percent and 35 percent. The 34-percent tax rate begins with taxable income in excess of \$75,000. The

¹ Aggregate data on revenues used in this paper are from the National Income and Product Accounts computer data file of April 2, 1996. These data reflect the revisions to the calculation of GDP and its components discussed in the *Survey of Current Business*, January 1996.

² For a recent survey of individual marginal tax rates under both the income tax system and implicit tax rates from welfare assistance program, see Lyon (1995).

³ Table 3.4, Internal Revenue Service (1995).

35-percent tax rate, enacted in 1993, applies to incomes in excess of \$10 million. Two additional marginal tax rates of 39 percent and 38 percent apply for narrow income intervals. The intent of these higher marginal tax rates is to take away the benefit of the lower marginal tax rates, so that the average tax rate is equal to the marginal tax rate for high-income corporations. Since 1986, a strengthened minimum tax has affected from 20 to 30 percent of the largest U.S. corporations. Corporations affected by the minimum tax face a lower statutory tax rate (20 percent) on a broader definition of income. For most activities, minimum tax firms face different incentives than firms paying regular income tax.

The importance of corporate tax revenues has decreased significantly since the 1950s. Auerbach and Poterba (1987) show that between 1959 and 1985, the real dollar value of corporate taxes declined by about one third. They attribute much of this reduction to declining rates of corporate profitability, although legislative changes also had a role. Given the decline in the real value of corporate taxes while other federal tax sources (notably social security payroll taxes) were expanding, the share of federal receipts accounted for by corporate taxes has shrunk greatly. Figure 2 shows that corporate tax revenues declined from more than 20 percent of federal revenues in the early 1960s to a low of 5 percent in 1982, and then increased to about 10 percent since 1993. The recent trends in revenues and their causes will be examined in the next section.

At the federal level in 1995, indirect taxes, principally excise taxes and custom fees, accounted for 6.2 percent of federal revenues. The primary excise taxes are those on gasoline (accounting for 40 percent of excise receipts in 1994), alcohol (14 percent), tobacco, diesel fuel, and air transportation (each accounting for 10 percent of excise receipts in 1994).

State and local tax systems rely primarily on indirect taxes for their revenues. As shown in Figure 3, sales taxes accounted for 30 percent of revenues in 1995, and property taxes accounted for 27 percent. Personal taxes and social insurance taxes accounted for 23 percent and 9 percent of revenues, respectively. Corporate income taxes accounted for only 4 percent of revenues.

3. The Declining Importance of Corporate Tax Revenues

As shown earlier in Figure 2, corporate tax revenues have declined in importance as a revenue source for the federal government over the past several decades. The decline is a function of legislated changes, changes in corporate behaviour, and overall economic changes.

Changes in Corporate Profitability and Leverage

Auerbach and Poterba (1987) describe changes in corporate profitability between the early 1960s and the early 1980s. They calculate that from 1961 to 1965, the average corporate profit rate (measured relative to tangible assets) was 10.96 percent, then it declined to 4.91 percent by the early 1980s. Auerbach and Poterba do not attempt to explain the reasons for the decline in corporate profits over this period.

In a follow-up paper, Poterba (1992) considers the extent to which changes in leverage may help explain changes in corporate profits. Part of the decline in measured profitability over this period is the result of an increase in the share of operating income paid out in interest. Interest is

subtracted before the computation of corporate profit in the national income accounts, as well as for measuring corporate taxable income. Interest income is generally taxed at higher effective personal rates than equity income, however, due to the ability to defer capital gains taxes (and avoid them on death). Therefore, some of the decline in corporate tax payments is likely to be offset by an increase in personal tax payments. For non-financial corporations, interest payments in the 1960s were 10 percent of operating income, the sum of profits and interest income, then they increased to 23 percent in the 1970s, and to 34 percent in the 1980s. This trend appears to have reversed since 1990. In the past three years, interest payments have averaged 22 percent of corporate operating income, about the same as they were in the 1970s.

Poterba suggests that incentives for corporate leverage may be strongly affected by the rate of personal and corporate taxation. Poterba follows the model of Miller (1977) to examine the relative after-tax advantage to personal investors holding debt relative to equity. Using the top marginal tax rate for individuals and the statutory corporate tax rate, the theory does appear to explain the direction of changes in leverage through 1990, when Poterba's data ended. New data made available since Poterba's study was published are also consistent with the Miller model. The increases in personal tax rates in the 1993 Act have reduced the advantages to debt finance, since the new higher marginal tax brackets of 36 percent and 39.6 percent do not apply to capital gains. As predicted under the Miller theory, the use of debt has declined in the past several years. Table 1 updates Poterba's calculations through 1995 to examine the changes in the incentives to corporate leverage.⁴

The shifts in the use of leverage over time, however, are not sufficient to account for the entire decline in corporate profit rates since the early 1960s. Table 2 presents summary information on the profits of domestic non-financial corporations as a share of GDP, before and after subtraction of interest payments. Operating income, the sum of corporate profits and interest payments, decreased from 9.1 percent of GDP in the 1960s to less than 7 percent in the 1980s. Between 1991 and 1995, operating income was 6.2 percent of GDP. The annual data are graphed in Figure 4. Other factors, therefore, must be sought to explain the decline in corporate pre-tax profits rates and profits as a share of GDP. Possible explanations for these declines are not considered here, but are assumed to be due to non-tax factors.

Effective Rates of Corporate Taxation

A declining effective tax rate on corporate profits also plays an important role in the decline in the importance of corporate tax revenues. The marginal effective corporate tax rate measures the share of pre-tax income expected to be paid in corporate taxes on new investment financed with equity. It reflects the investment incentives in place at the time the investment is made, such as accelerated depreciation and the investment tax credit, in addition to the statutory corporate tax rate. While declining overall since the 1950s, the marginal effective corporate tax rate has varied

⁴ The tax rates used in Poterba's calculations ignore two effects of the 1986 Act that would reduce the incentive for debt finance: the alternative minimum tax, which provides a 20 percent statutory tax rate for affected corporations, and rules regarding the apportionment of interest deductions to foreign-source income. The incentives provided by these provisions are discussed in sections IV and V.

substantially over this period. The variation in effective rates reflects both legislated changes in tax rules over this period, and changing economic conditions, such as inflation and interest rates, which affect the real value of future depreciation allowances.

Figure 5 shows that the marginal effective corporate tax rate declined from 63 percent of real income in 1953 to 37 percent by 1965.⁵ This decline reflects the implementation of accelerated rates of depreciation in 1954 and the investment tax credit added in 1962. By 1975, effective rates of tax exceeded 50 percent as inflation rates increased from about 1 to 2 percent in the early 1960s, to over 10 percent by 1974. The high rates of inflation more than erased the benefit of shortened tax lives for depreciation added in 1971. Between 1981 and 1985, effective tax rates fell from about 50 percent to 38 percent as a result of the further shortening of tax lives in 1981 and as inflation began to decline. Since 1986, effective tax rates on equity-financed investment have been about one third of corporate real income.⁶

Also shown in Figure 5 is the statutory tax rate used in calculating the effective tax rates that applied to corporate taxable income. In contrast to the large changes in effective tax rates on real income over this period, the statutory tax rate has varied relatively little. Between 1953 and 1986, the statutory corporate tax rate ranged from 52 percent to 46 percent. The *Tax Reform Act* of 1986 lowered the corporate tax rate to 34 percent. Most recently, the 1993 Act increased it to 35 percent for firms with more than \$10 million in income.

The contrast between the relative stability of statutory tax rates and the wide fluctuations in effective tax rates over this time period makes clear that the way in which a tax system measures taxable income is of fundamental importance. The next section examines the trends set in place in corporate taxation by the *Tax Reform Act* of 1986.

4. Corporate Taxation since the *Tax Reform Act* of 1986

Since the founding of the corporate income tax system in 1909, numerous industry-specific provisions were enacted that caused taxable income to deviate from the theoretical, economic measure of income. Economic income is a comprehensive measure of income that accounts for the costs of earning income, and appropriately recognizes the timing of income earned and of costs incurred. Allowable business deductions from economic income reflect only the portion of current expenditures without lasting value. Special industry provisions allowed under the tax code included rapid write-offs for the intangible costs of developing mines and oil and gas wells, and percentage depletion. A wide range of other special provisions for industries ranging from

⁵ The series on corporate marginal effective tax rates for equity-financed investment was provided by Jane Gravelle. They are based on the same assumptions as presented in Gravelle (1994), Table B.1, p. 294, except that they exclude any personal-level taxes on corporate income.

⁶ The decline in effective tax rates since 1986 in Figure 5 is partly a result of further reductions in inflation and interest rates modelled by Gravelle. The marginal effective tax-rate calculations do not consider the effects of the alternative minimum tax or changes in certain other accounting rules that increased revenue collections under the 1986 Act. Fullerton and Lyon (1987) find that the 1986 Act increased corporate effective tax rates slightly when inflation and interest rates are held constant.

agriculture to insurance to shipping were included in the original corporate income tax, or adopted thereafter.

In addition to special industry provisions, other tax provisions with wide application across industries resulted in further deviations from economic income. The investment tax credit, first offered in 1962 as an investment stimulus, was available to any business making purchases of equipment. As inflation increased the cost of replacing equipment in the 1970s, more rapid deductions for depreciation were also provided, with the greatest acceleration provided in 1981. By 1981, the cost of nearly all equipment and structures could be recovered over periods no greater than five and 15 years, respectively. Rapid depreciation deductions and investment tax credits might be desirable components of a tax system designed to tax economic income in a high-inflation environment but, as inflation moderated, the combination of the investment tax credit and accelerated depreciation essentially exempted from taxation the income earned from new investments in equipment.

In the pre-1986 tax environment, income earned by different businesses, and from different sources within any business, was subject to a wide variety of effective tax rates due to differences in deductions, credits and exclusions for these activities. Industries that were equipment-intensive faced rates of taxation close to zero due to generous depreciation allowances and the investment tax credit, while industries more dependent on structures, inventories and land faced effective tax rates close to the 46 percent corporate statutory tax rate. Special industry provisions caused a further round of resource reallocation. Reforms, initially proposed by the Treasury Department in 1984, were intended to "level the playing field" by taxing the income from different activities more uniformly. The legislation culminating in the 1986 Act, while not quite as radical as the original Treasury proposal, still brought about tremendous reform of the type sought by the 1984 plan. The 1986 Act contained numerous changes broadening the individual and corporate tax bases while lowering statutory tax rates. A General Accounting Office report found that more special tax provisions were eliminated by the 1986 Act than in all the years since the establishment of the income tax, although, as indicated by the title of the report, not all special industry provisions were eliminated.⁷ Many favourable tax provisions that were not eliminated were scaled back. The 1986 Act was estimated at the time of its enactment to increase annual corporate income tax revenues by about \$25 billion, a 25- to 30-percent increase.

The 1986 Act generally sought to bring the definition of taxable income closer to a measure of economic income. Among the most significant features affecting corporations were the following:

- 1) repeal of the investment tax credit;
- 2) reduction in the top statutory corporate tax rate from 46 percent to 34 percent;
- 3) longer depreciation lives for equipment;
- 4) strengthened minimum tax;

⁷ General Accounting Office, *Tax Expenditures Deserve More Scrutiny*, GAO/GGD/AIMD-94-122 (June 1994), pp. 16, 25.

- 5) narrowing of incentives for research and development;
- 6) restrictions on foreign tax credits and sourcing of income and expenses; and
- 7) various accounting changes.

1) Repeal of the Investment Tax Credit

Under the pre-1986 tax law, investment in equipment was eligible for a credit against income tax up to 10 percent. The credit was reduced to 6 percent for property depreciated over three years (mostly automobiles and special tools). The credit was faulted for favouring investment in shorter-lived equipment over longer-lived equipment since, except for three-year property, its value was not tied to the asset's lifetime. The credit also favoured investment in equipment over buildings, since real property was not eligible for the credit.

One argument made on behalf of the investment tax credit is that, unlike a general tax rate reduction, it encourages investment without conferring windfall gains to existing assets (only limited amounts of used assets were eligible for the credit). The investment tax credit then can be a less expensive way of lowering the cost of capital for corporations than a general tax rate reduction. In 1993, President Clinton proposed a temporary incremental investment tax credit, which would have applied to investment in excess of a base amount determined by the firm's historic annual investment. While theoretically an incremental credit is more efficient, since less tax revenue would be lost on investment that would have been undertaken anyway, many tax lawyers believed the potential to abuse an incremental credit was great. By establishing new firms and through leasing assets, existing firms might be able to make the credit effectively apply to all new investment.⁸

Finally, although the argument for a level playing field ultimately carried the day during the debate of the 1986 Act, some economists have argued that investment in equipment has spillover benefits for the economy that do not exist for investment in buildings. If this spillover benefit does, in fact, exist, then it would be efficient to tax investment in equipment at lower rates than investment in buildings.⁹

⁸ For an analysis on the efficiency of a permanent incremental investment tax credit relative to one applying to all investment see Meyer, Prakken and Varvares (1993). Inefficiencies potentially resulting from a permanent incremental investment tax credit include the bunching of investment in particular periods and shifts in the allocation of production across firms to maximize use of the credit.

⁹ A study by J. Bradford DeLong and Lawrence H. Summers makes the argument that investment in equipment, perhaps by speeding the diffusion of new technologies, is more beneficial than investment in structures. See DeLong and Summers (1991). A study critical of their empirical findings is Auerbach, Hassett and Oliner (1994).

2) *Reduction in the top statutory corporate tax rate from 46 percent to 34 percent*

The cost of lowering corporate statutory rates in the 1986 Act was almost identical to the revenue gain from repeal of the investment tax credit. As mentioned above, a rate reduction increases the return from existing assets as well as from new investments. It also applies to income earned from all sources, not just equipment. The reduction in statutory corporate tax rates was not sufficient to offset the increase in the cost of capital for equipment from the loss of the investment tax credit. Investments such as buildings, inventory, and land that were not eligible for the investment tax credit under the old law, however, were made more attractive from the reduction in statutory rates.

One form of investment that is not affected by changes in the statutory tax rate is investment in intangible assets, such as the creation of goodwill through advertising or know-how from research and development expenditures. Investments in intangibles are expensed for tax purposes, and thus are effectively untaxed if financed through equity, and bear a negative tax rate if debt financed. Fullerton and Lyon (1987) show that depending on the extent of intangible capital in the economy, it is theoretically ambiguous whether raising the cost of capital for investment in equipment, while not changing the cost of capital for intangible investment, is efficiency enhancing. The 1986 Act, however, by lowering the cost of capital for other forms of tangible investment, reduced the disparity not only between these types of tangible investment and equipment, but also between these tangible assets and intangible ones. Fullerton and Lyon conclude that the lower statutory tax rates were essential to the efficiency gains in the allocation of capital from the 1986 Act.

The reduction in statutory tax rates also was likely to change the real and financial incentives of multinational corporations (MNCs), which are generally liable for taxes in multiple countries. Some of the MNCs' taxes may be credited against other taxes, and they also have the opportunity to restructure transactions to change their tax consequences. As a result, MNCs can be affected by rate changes differently than entirely domestic firms. Effects of the changes in statutory tax rates on the incentives of MNCs will be addressed in Section 5.

3) *Longer depreciation lives for equipment*

Depreciation lives were lengthened by the 1986 Act for equipment to more closely reflect their useful lives. Although lives were lengthened, the method used to recover property became more accelerated, increasing from a 150-percent to 200-percent declining balance for most equipment. For regular tax purposes, equipment is generally recovered over three, five, seven, or 10 years, using the 200-percent declining balance method switching to straight line. Certain public utility property is recovered over 15 and 20 years under the regular tax using the 150-percent declining balance method switching to straight line.

Under the pre-1986 law, the combination of accelerated depreciation over short lives and the investment tax credit resulted in effective tax rates close to zero for most equity-financed equipment. Based on the top corporate marginal tax rate of 34 percent in effect until 1993, Lyon (1997) calculates the marginal effective tax rate on equity-financed equipment to be 27 percent. At the 35-percent current top statutory tax rate, the marginal effective tax rate on equipment is 28 percent.

Depreciation lives for structures were also lengthened by the 1986 Act, and real property was required to be recovered using the straight-line method. The 1986 Act set recovery periods for residential rental property and non-residential structures of 27.5 and 31.5 years, respectively. The 1993 Act further increased the depreciation period for non-residential structures to 39 years. Depreciation of commercial structures is slightly less accelerated than estimates of economic depreciation of Hulten and Wykoff (1981).

4) *Strengthened minimum tax*

Although a minimum tax on corporations existed since 1969, the 1986 Act greatly changed its structure. About 20 percent of the increase in tax revenues from corporations was estimated to come from the new alternative minimum tax (AMT).¹⁰ Data indicate that since 1987, more than 20 percent of the largest corporations have paid AMT each year.¹¹ Taking into consideration other firms that are constrained at the margin by the rules of the minimum tax, from 30 to 40 percent of corporate assets are held each year by firms facing the AMT. Among MNCs, Lyon and Silverstein (1995) report that in 1990 more than half of all foreign-source income was earned by corporations subject to the AMT.

The AMT generally taxes a broader measure of income than the regular tax, but at a lower statutory rate. Firms are required to calculate their tax liabilities with and without the AMT, and pay the larger amount. AMT payments are creditable in the future against regular tax, but may not reduce a firm's regular tax payment below the amount due under the AMT. Depreciation deductions for equipment are greatly scaled back under the AMT. Equipment is recovered over time periods as much as twice as long as under the regular tax, and using a slower declining balance rate. All equipment is recovered using the 150-percent declining balance rate with a switch to straight line. Between 1987 and 1993, depreciation for equipment was further restricted by reference to depreciation used for the firm's financial statements and methods required under earnings and profits calculations.

The AMT statutory tax rate is 20 percent. The effect of the lower statutory tax rate but slower depreciation allowances on effective tax rates requires an explicit calculation. The effect of the AMT also differs depending on the source of finance. Since interest is deducted at a lower statutory tax rate under the AMT, debt-financed investment is made relatively worse off than equity-financed investment. Lyon (1997) estimates that during the 1987-93 period, a firm subject to the AMT for five years would have faced an increase in the cost of capital net of depreciation

¹⁰ Joint Committee on Taxation (1987).

¹¹ General Accounting Office (1995) and Lyon (1997).

of 8.5 percent for an equity-financed investment and 13.0 percent for a debt-financed investment. Table 3 provides a comparison of the cost of capital net of depreciation for various assets under the regular tax, a five-year period of AMT, and a five-year period of loss status.¹²

One feature of the AMT is that foreign tax credits and net operating losses may not together reduce a firm's tax liability by more than 90 percent. As a result, firms with large amounts of foreign income pay a 2-percent U.S. tax on foreign dividends (10 percent of the 20 percent statutory tax rate) when the average foreign tax rate on these dividends exceeds 20 percent. In 1990, Lyon and Silverstein (1995) find that just over half of the foreign-source dividends received by AMT corporations were subject to this 2-percent tax.

5) Narrowing of incentives for research and development

A significant incentive for research and development (R&D) activities is that costs of salaries and other nondepreciable items may be immediately deducted from income. Beginning in 1981, a 25-percent credit for incremental R&D expenditures was also provided. The 1986 Act reduced the credit to 20 percent, required that one half of the credit be included in income (reducing the effective value of the credit to 16.6 percent), and restricted the activities qualifying for the credit.

The incremental credit originally was tied to a moving average of the firm's historic level of R&D activities. The 1989 Act tied the base against which incremental expenditures were measured to the firm's fixed 1984-88 R&D level. The base is adjusted for growth in the firm's sales over time, but not by the amount of R&D undertaken by the firm since 1988. This corrects a defect in the original incremental credit, which eventually caused a firm to be penalized for increasing its R&D expenditures. One continuing shortcoming of the present incremental credit is that firms may have an incentive to bunch R&D investment into short periods to qualify a larger fraction of it for the incremental credit. The large cost of adjustment thought to exist for R&D investments may limit the amount of shifting that actually takes place. The 1989 Act also increased the amount of the credit included in income to 100 percent (reducing the effective value of the credit to 13 percent for a firm in the current top 35 percent tax bracket). The R&D credit cannot be claimed by firms on the AMT, but may be carried forward for up to 15 years.¹³

Since 1986, the R&D credit has been enacted with an automatic sunset provision, requiring periodic re-enactment. The automatic sunset provision, while helpful in the sense of requiring frequent reevaluation of ongoing provisions, has in the case of the R&D credit largely been used to avoid the full revenue cost of a permanent credit. Tax legislation in the past decade has been under a constraint that any revenue-losing provision be offset by revenue-increasing provisions of equal magnitude over annual, five-year, and, most recently, seven-year periods. Less offsetting revenue is needed for a temporary one-year extension of the R&D credit than a permanent extension. After a one-year lapse in the R&D credit, legislation enacted in 1996 extended the credit through May 31, 1997. This legislation also created a new elective alternative credit for

¹² The methodology for these calculations is provided in Lyon (1990) and Lyon (1997).

¹³ For an analysis of the effectiveness of the R&D credit, see Hall (1993) and General Accounting Office (1996).

firms whose R&D does not exceed their historic base. These firms may claim a credit for their R&D in excess of one percent of sales. The credit rate under this alternative method is limited to 2.75 percent. Firms adopting the alternative credit must use this method in future years as well.

Another important feature for the R&D activity of MNCs is the fact that firms can allocate some of the cost of R&D conducted for their worldwide activities against their U.S. income. An economic accounting of R&D activity would apportion domestically conducted R&D to the revenues attributable to it, whether earned domestically or abroad. Since 1977, regulations and tax laws have allowed firms to disproportionately apportion domestically conducted R&D to U.S. income. The benefit of these provisions is that for firms that have excess foreign tax credits, apportioning deductions from foreign-source income to domestic income effectively leaves U.S. tax on foreign income unchanged while reducing U.S. tax on domestic income.¹⁴

From 1981 to 1986, 100 percent of domestically conducted R&D could be allocated to domestic-source income. The 1986 Act reduced this amount to 50 percent, with the remaining 50 percent to be apportioned between domestic and foreign-source income on the basis of sales or gross income. The 1988 Act temporarily increased the percentage that could be apportioned domestically to 64 percent.¹⁵ The 1993 Act temporarily reduced this percentage to 50 percent. The most recent regulations provide that 50 percent of domestically conducted R&D may be allocated domestically if the remaining amount is allocated on the basis of sales, and 25 percent may be allocated domestically if the remaining amount is allocated on the basis of gross income. Hines (1993) uses variations in the foreign tax credit position of U.S. multinationals using financial information of firms between 1984 and 1989 to evaluate the effect of these provisions on firm R&D.

6) *Restrictions on foreign tax credits and sourcing of income and expenses*

The 1986 Act made several changes to the treatment of foreign income that were designed to reduce the ability of firms with excess tax credits to shelter earnings on other income. The 1986 Act and further legislation in 1993 also reduced the ability of firms to defer U.S. tax on foreign income of a passive nature. Finally, legislation and regulations have sought to restrict the ability of companies operating in the United States to use transfer pricing to divert profits to subsidiaries in low-tax countries.

Grubert and Mutti (1987) list 16 foreign provisions directly altered by the 1986 Act.¹⁶ The two most significant changes, both in terms of revenues and in their general applicability, are interest allocation rules and the creation of separate limitations for crediting foreign taxes on different

¹⁴ Royalties earned from the licensing of R&D are allocated to foreign-source income. Together with the disproportionate apportionment of R&D expenses to domestic-source income, this results in a mismatch of deductions and income that benefits firms with excess foreign tax credits.

¹⁵ See Hufbauer (1992) for a summary of the R&D allocation and apportionment rules in effect from 1977 to 1991.

¹⁶ See Joint Committee on Taxation (1987) for a detailed explanation of these provisions. There are notable differences in the revenue assigned to the different provisions by the Joint Committee on Taxation and those shown by Grubert and Mutti (1987).

types of foreign income.¹⁷ (Also see the discussion on R&D apportionment rules above.) Discussion of the overall effect of the 1986 legislation on incentives of multinationals is provided in Section 5.

The interest allocation rules of the 1986 Act assume that debt used by an MNC is largely fungible in its uses domestically and abroad. The legislation reduced the ability of a U.S. parent to allocate interest deductions against U.S. income by changing the assignment of debt wholly within its domestic affiliates. The reassignment of interest deductions from domestic to foreign source is inconsequential for firms that owe U.S. tax on their foreign income, but results in an increase in U.S. tax for firms with excess foreign tax credits. The rules require that a corporation's combined U.S. debt be apportioned between domestic and foreign sources on the basis of asset values. (The legislation treats foreign-incurred debt asymmetrically, resulting in an over apportionment of foreign-incurred debt to foreign sources.) Altshuler and Mintz (1995) and Froot and Hines (1995) show the incentives these rules have for an MNC in an excess credit position to reduce its use of debt and, for a given level of consolidated debt, to increase the use of debt abroad and to reduce it domestically. Altshuler and Mintz also demonstrate the effect these rules have on increasing the cost of capital for foreign and domestic investments of U.S. MNCs.

The 1986 Act created separate limitations for the calculation of foreign tax credits arising from certain types of income. Income is grouped into nine separate baskets, with a foreign tax credit being calculated for each type of income. The existence of these separate baskets reduces the ability to use excess credits arising from certain highly taxed foreign activities to offset the U.S. tax owed on lightly taxed foreign activities. Different baskets exist for interest income subject to high withholding taxes; financial services income; shipping income; dividends from a foreign corporation in which the parent has an ownership share between 10 and 50 percent; passive income; dividends from various foreign sales corporations; and income from "general" activities.

The 1986 Act also made a change in the manner in which the foreign tax credit was calculated. Under prior law, dividends from foreign subsidiaries were assumed to be made first from current earnings. Foreign taxes deemed paid on these dividends were calculated on the basis of the firm's current taxes first. As a result, a corporation had an incentive to receive dividend payments from its foreign subsidiaries in years in which the subsidiary's effective tax rate was higher than average, and defer them when the subsidiary's tax rate was below average. Notable cases where significant variation in a subsidiary's effective tax rates might occur include a subsidiary benefiting from a temporary tax holiday, and subsidiaries operating in countries, such as Canada, where depreciation deductions could be deferred at the election of the taxpayer. This method of timing dividend repatriations (the so-called "rhythm method") effectively increased the period over which lightly taxed earnings could be deferred from taxation in the United States. The Act required that taxes and earnings of foreign subsidiaries be accumulated over time, largely eliminating the ability to take advantage of temporary changes in a subsidiary's tax rate.

¹⁷ The 1986 and 1993 acts also further restricted the ability to defer U.S. taxes on passive earnings, and restricted the benefit of the possessions tax credit (affecting mostly Puerto Rican subsidiaries).

Through legislation and regulations, Internal Revenue Service (IRS) authority to adjust income arising through intracompany transactions has increased. In the past two years, the IRS issued final transfer pricing regulations covering a variety of activities. The 1993 Act also increased penalties for substantial misvaluation of transactions. The regulations, while complex, generally require a company to determine transfer prices contemporaneously and document how prices were determined. The documentation should show that the methods used resulted in the most reliable measures of an arm's-length result between unrelated parties. To alleviate the possibility that a taxpayer will later be challenged on its use of transfer prices by the IRS, corporations are making greater use of negotiating advanced pricing agreements with the IRS.¹⁸

7) *Various accounting changes*

Accounting changes in the *Tax Reform Act* of 1986 were responsible for one half of the total increase in taxes placed on corporations.¹⁹ Fullerton et al. (1987) argue that many of these accounting changes did not directly change investment incentives. They suggest that only two provisions – uniform capitalization of inventories and changes in accounting for long-term contracts – can accurately be modelled as affecting investment incentives. Further, Fullerton et al. note that revenue estimates for the changes in the accounting for long-term contracts included significant one-time revenue gains, overstating the permanent effect of this change on incentives. Modelling of these provisions slightly increases the effective tax rate on investment in inventory, with insignificant changes to other assets. Grubert and Mutti (1987) present estimates of changes to U.S. capital stock relative to the rest of the world based on the long-run revenue effect of several of the accounting changes (including the alternative minimum tax). Their estimates suggest that these provisions should not be ignored in comparisons of the desirability to invest abroad relative to domestically.

One important feature of these accounting changes, as well as the alternative minimum tax, that should not be overlooked is the significant increase in complexity associated with these provisions. Slemrod and Blumenthal (1993) find that the AMT and the uniform capitalization of inventory rules are the two provisions of the 1986 Act most cited by corporations as increasing compliance costs. It is well understood that the costs of taxpayer compliance are much like taxes themselves in terms of incentives. In an international context, compliance costs are potentially more disadvantageous to taxpayers than actual tax payments. Compliance costs associated with paying foreign taxes are not creditable! A country desiring to be attractive to multinational investment would be well served by creating a tax system that is easy to comply with.

¹⁸ See Bonfiglio (1995) and Carlson et al. (1996) for a discussion of the recently issued regulations.

¹⁹ The 1993 Act provides that the cost of acquiring intangible assets, such as goodwill, customer lists and trademarks, can be amortized over 15 years. Previously, the Internal Revenue Service held that these costs were generally not deductible.

5. Effects of Enacted Tax Changes on Multinational Corporations

The 1986 Act had the potential to greatly change the behaviour of MNCs operating in the United States. A large number of papers have addressed various aspects of the 1986 tax changes on multinational operations. (See Hines [1996a] for an encompassing survey of empirical studies examining the responses of MNCs to taxes.) The most important effects of the 1986 Act on the behaviour of multinationals are examined here.

Statutory Tax Rate Reductions

Slemrod (1990, 1995) suggests that the most important change affecting U.S. multinational outward foreign direct investment (FDI) was the change in the top corporate statutory tax rate from 46 percent to 34 percent (35 percent since 1993). For a U.S. multinational operating in high-tax countries (rates in excess of 46 percent), the lower U.S. tax rate would have no effect on the firm's overall tax liability. Firms operating in low-tax countries (rates below 46 percent) would receive a reduction in the U.S. tax owed on their foreign earnings. Goodspeed and Frisch (1989) estimated that 32 percent of manufacturing firms were in an excess-credit position before 1986. A static projection of the statutory tax rate reduction was estimated to increase the percentage of manufacturing firms in an excess-credit position to 82 percent. The creation of the new separate limitation baskets would further increase the percentage of firms in an excess-credit position under the static projection.

For a firm in an excess-credit position (i.e. a firm facing an average foreign tax rate in excess of the U.S. rate), the foreign tax rate on income determines the marginal rate of tax paid by the firm. Shifting profitable operations for such a firm from higher-taxed to lower-taxed countries directly reduces the firm's overall tax liability.

Of course, even before the 1986 Act, a firm likely had an incentive to lower its average foreign tax rate below 46 percent. While U.S. tax would be owed when earnings from these low-taxed foreign operations were repatriated, by deferring repatriation, the firm could benefit from the lower foreign tax rate. This deferral benefit, however, is smaller than the outright elimination of tax liability.

As a result, the 1986 Act gives U.S. firms a much greater incentive to seek out countries with rates of taxation below 46 percent than before. The largest reductions in overall tax liability would accrue to firms operating in countries with an average tax rate of 34 percent or less.

In addition to changes in real investment, Grubert and Mutti (1987) note that firms with excess tax credits also would have increased incentives to shift the reporting of taxable income from foreign locations to the United States. Multinational firms with operations in different countries routinely must use non-market prices to account for the transfer of real goods, services, and intangibles among affiliates. Given the complex interactions among these affiliates, including the method of finance, the frequent absence of market prices for the type of transactions conducted, and the absence of a definitive theoretical correct way to account for cost savings that arise through economies of scale and other intracompany transactions, the parent corporation may have some flexibility, both legal and illegal, in reporting the location of earnings and deductions. A

high-tax country may find that its tax base would contract through the use of transfer pricing by MNCs, even with no apparent changes in real investment. The lower 34-percent tax rate in the United States would expand the number of countries that would be susceptible to loss of their tax base through transfer pricing. Using financial statement data, Harris et al. (1993) find evidence that U.S. multinationals are able to shift income from high-tax countries to the United States and from the United States to low-tax countries.

Contemporaneous with the 1986 Act, a number of countries, including Canada, adopted similar changes that resulted in lower statutory tax rates for corporations. (See Bossons [1987], Tanzi [1987], and Whalley [1990] for a discussion of the forces leading to reform in these other countries.) Grubert et al. (1996) report that these tax rate reductions by other countries were a significant factor in preventing an increase in the percentage of firms in an excess-credit position. They find that the percentage of firms in an excess-credit position in 1992 is almost the same as in 1984. Further, they report that the foreign rate of taxation on income repatriated as dividends fell by 10.4 percentage points, with the largest reductions occurring in countries with rates of taxation above 40 percent in 1984. The decline in the average tax rate on foreign dividend income is almost identical to the 12 percentage point reduction in U.S. statutory tax rates.

Changes in the Cost of Capital

In addition to the changes in statutory tax rates and in the allocation and apportionment of deductions, changes in the traditionally measured Hall-Jorgenson cost of capital for real investment may also have affected locational decisions of both U.S. and foreign-owned MNCs. The 1986 Act increased the effective rate of taxation on equipment investment by repealing the investment tax credit. In contrast, foreign investment by U.S. multinationals never benefited from the investment tax credit or other domestic provisions for accelerated depreciation. Similarly, as shown by Lyon and Silverstein (1995), the newly enacted alternative minimum tax increased effective tax rates on equipment investment in the United States, but left unchanged or even decreased effective tax rates on investment abroad. The effect of both of these changes was to increase the effective rate of taxation of domestic equipment relative to equipment abroad. Although the effect of these changes on overall investment by U.S. MNCs is difficult to discern, Harris (1993a, 1993b) reports that those that tended to be equipment-intensive expanded investment in their foreign locations.

Scholes and Wolfson (1991, 1992) suggest that the 1986 Act may have been responsible for an increase in U.S. investment by foreign-owned MNCs. Prior to the 1986 Act, tax advantages in the form of the investment tax credit and accelerated depreciation for equipment resulted in a reduction in U.S. taxes. Scholes and Wolfson argue that these provisions were less important to foreign-owned firms from countries that would impose home-country taxes upon repatriation of income from the U.S. operation. Further, they note that the domestic incentives for investment in equipment likely reduced its pre-tax return below that of other forms of investment. For foreign-owned MNCs from high-tax home countries operating on the residence principle, the reduction in pre-tax returns was more of a disincentive to U.S. investment than an explicit tax on a higher pre-tax return. An explicit tax is creditable, whereas an implicit tax in the form of a lower pre-tax return is comparable to a less advantageous deduction. The 1986 Act undid the tax advantage to equipment, replacing implicit taxes with explicit taxes. As a result, Scholes and

Wolfson argue, investment in the United States by foreign-owned MNCs from residence-based countries was relatively more advantageous after 1986. The Scholes-Wolfson hypothesis requires that the ability to defer tax from home country taxes was not an important factor for these foreign-owned firms. Further, it assumes that foreign firms could not take advantage of the low U.S. rate of taxation to offset high taxes paid in other foreign locations. In either of these alternative cases, foreign-owned firms would be affected by the investment tax credit and accelerated depreciation in a manner similar to domestic firms. Additionally, the Scholes-Wolfson hypothesis is not relevant to firms from countries that do not tax foreign-source income. Scholes and Wolfson (1992) present evidence on foreign acquisitions of U.S. companies after the 1986 Act to support their hypothesis. Other studies more closely examining these acquisitions come to mixed results.²⁰

Allocation and Apportionment Rules

Grubert et al. (1996) find some changes in the form in which income is repatriated after 1986, with an increase in the share of royalty income and a decrease in dividends. Since royalty payments are generally not subject to foreign tax or are taxed at low rates, this change in behaviour is consistent with minimizing overall tax liability on the part of multinationals given the lower U.S. statutory tax rate. In contrast, firms might have had a decreased incentive to perform R&D domestically rather than abroad, given the changes in the R&D allocation rules in 1986. This would have been expected to reduce royalty payments from foreign subsidiaries if foreign R&D substituted for technology licensed from the United States. Hines (1995) finds evidence that licensed technology by foreign subsidiaries is a substitute for their own R&D.

Altshuler and Mintz (1995) and Froot and Hines (1995) find evidence that firms also increased the use of debt by foreign subsidiaries. This change is consistent with the incentives provided by the change in interest allocation rules, but such a change might also be expected in response to a larger reduction in U.S. statutory tax rates than in foreign tax rates.

Incentives for Export Earnings

Two provisions of the tax code favour domestic production for export. First, 50 percent of export earnings may be allocated to foreign-source income (the 50-50 method). The allocation of these earnings to foreign-source income allows a firm that is in an excess credit position to utilize additional foreign-tax credits. A firm with excess foreign tax credits thus avoids current U.S. taxation on this income.²¹ The estimated revenue loss from this provision in 1996 is \$1.4 billion.²² (By comparison, the estimated advantage from deferral of foreign-source income of U.S. subsidiaries is \$1.8 billion in 1996.) The value of this export incentive would be expected

²⁰ In particular, Auerbach and Hassett (1993) find the acquisitions do not appear to conform to the Scholes-Wolfson hypothesis. See Hines (1996a) for a discussion of other studies examining this relationship.

²¹ Because foreign tax credits may be carried forward for up to five years, the increased use of foreign tax credits may cause the firm to be subject to U.S. taxation on its foreign income in the future. At least by deferring U.S. taxation on this income the firm benefits, and the income is completely exempted from U.S. taxation if the firm would be continually in an excess credit position.

²² Analytical Perspectives, Budget of the United States Government, Fiscal Year 1997, p. 65.

to increase as a result of the statutory rate reduction in the 1986 Act, which made it more likely that firms would be in an excess credit position.

A separate incentive for export is the foreign sales corporation provision, under which 15 percent of the combined export income of the special export corporation and its parent is exempt from taxation. Further, 25 percent of the taxable income may be allocated to foreign-source income. As a result, use of a foreign sales corporation may result in a maximum exemption of 40 percent of export income from taxation. Use of foreign sales corporations is estimated to result in a revenue loss of \$1.6 billion in 1996. The benefit of the foreign sales corporation was reduced slightly by the statutory rate reduction of the 1986 Act for firms without excess credits. Hufbauer (1992) estimates that the combination of the 50-50 method and the foreign sales corporations may induce an amount of exports approximating 7 percent of total U.S. merchandise exports.

6. International Implications of Fundamental Tax Reform in the United States

The potential concern that Canada and other countries might have over major tax reform undertaken by the United States is understandable. The U.S. economy represents nearly one quarter of world production, one fifth of international trade, and more than one quarter of inward and outward FDI. U.S.-Canadian linkages are even stronger. Recent research has suggested significant behavioural response by corporations in response to tax changes. The potential exists for structural changes in business taxation to lead to changes in the flow of labour, capital and goods, and cause other reductions in the tax base of other countries.²³

Three significant changes to the U.S. federal tax system have recently been proposed: a retail sales tax proposed by Senator Richard Lugar and others; the Hall-Rabushka flat tax promoted by House Majority Leader Richard Armey; and the USA (Unlimited Savings Allowance) tax promoted by Senators Sam Nunn and Pete Domenici. All of these taxes are variants of consumption taxes, with some subtle and not-so-subtle differences amongst them. The following analysis considers the effects of these proposals on three locational choices of businesses: (i) tangible investment in plant and equipment, (ii) taxable income reporting (i.e effects on transfer pricing and financial transactions), (iii) export activity, and (iv) R&D activity. The analysis has benefited by two papers directly addressing the international effects of a switch to consumption taxation by Grubert and Newlon (1995) and Hines (1996b).²⁴ The specific mechanisms addressed affecting these activities are:

- 1) changes in the cost of capital;
- 2) changes in the statutory tax rate and tax base; and
- 3) changes in allocation and apportionment rules and treatment of export income.

²³ See Tanzi (1995) on this general theme.

²⁴ Other helpful papers include Auerbach (1996), Avi-Yonah (1995, 1996), Feldstein and Krugman (1990), McLure (1992), McLure and Zodrow (1995), and Musgrave (1992).

It should be noted that while this analysis points to important considerations of these proposed reforms, an analysis of their overall effect remains speculative. For example, despite analysis by many others suggesting that domestic interest rates would fall given the introduction of a consumption tax, Feldstein (1995) shows how even in a closed economy it is quite possible for interest rates to rise. Differences in effects such as these can significantly change investment and trade flows.

Since more detailed discussions of the tax proposals exist, only a brief outline of the proposals is provided here.²⁵ Each of the three plans would replace all other federal income taxes on corporations and individuals. Senator Lugar's sales tax plan calls for a 17-percent sales tax on final domestic sales to consumers. The tax is equivalent to a value-added tax with a rebate on exports and tax on imports.

The flat tax combines a 17-percent business-level cash-flow tax (excluding financial transactions) with a 17-percent individual tax on wage income.²⁶ Individuals would be given a generous personal exemption, but no other deductions would be permitted. The business tax is designed as an origin-based tax, with no rebate for exports and no tax imposed on imports. Foreign-source income of U.S. corporations and individuals would be exempt from tax.

The USA tax combines an 11-percent value-added tax at the business level with a graduated individual-level personal expenditure tax. Unlike the flat tax, the business-level USA tax includes wages in the tax base. However, the 7.65-percent payroll tax for social security paid by the employer would be allowed as a tax credit against the USA tax, effectively making nearly 70 percent of labour costs deductible. The business tax is a destination-based tax, exempting tax on exports and imposing a tax on imports. The personal expenditure tax would consist of graduated marginal tax rates up to 40 percent. It would allow a credit for social security payroll taxes that would phase out for high-income taxpayers. In addition to a personal exemption, individuals would continue to be allowed a deduction for charitable contributions and mortgage interest. Unlike current law, these two deductions would not be limited to itemizing taxpayers (about 30 percent of taxpayers presently).

²⁵ See Hall and Rabushka (1983, 1995) for details of the flat tax and Alliance USA (1995) for the USA tax plan. Joint Committee on Taxation (1996) also discusses these proposals in the context of their effect on international activities.

²⁶ The Treasury Department has estimated that a revenue-neutral flat tax would require a tax rate of approximately 21 percent (U.S. Treasury [1996]). Some proponents of the flat tax desire expenditure cuts rather than tax increases to achieve revenue neutrality, so it is not clear what tax rate would eventually emerge. Any transition relief for existing assets would require additional tax rate increases or expenditure cuts.

1) Changes in the Cost of Capital

All three consumption tax proposals are similar in exempting from taxation the marginal return to capital at both the business and personal levels.²⁷ For equity-financed investment, the absence of tax on the marginal return to investment in plant and equipment reduces the cost of capital to business, and lowers the required pre-tax return to individuals. This is a powerful incentive to business investment, and should increase individual saving. Efficiency gains are generated by improving the allocation of investment across diverse types of assets (equipment, structures and intangible investments), between the corporate and non-corporate sectors, and by improving the allocation of consumption over time.

The absence of taxation on the marginal return to business investment would make the United States attractive for domestic businesses and for U.S.- and foreign-based MNCs.

For U.S. MNCs, income earned from foreign subsidiaries would be exempt from U.S. taxation, but since non-creditable taxes would be paid on this income to the foreign host country, the United States would be a more desirable location. The loss of the ability to credit foreign taxes would give U.S. MNCs operating in high-tax foreign countries the greatest incentive to relocate to low-tax foreign countries or to the United States.

Foreign-based MNCs from countries that assess tax on worldwide income would continue to owe income tax in their home countries (and thus the reduction in U.S. tax is in part a shift between U.S. and foreign treasuries), but would have the option of deferring taxation by continuing to keep such profits in the United States or using such profits to offset excess tax credits from profit earned in high-tax countries. The greater the possibility of deferring home country tax, the more advantageous would be the U.S. location.

Relative to the current U.S. income tax, MNCs from countries taxing on a territorial basis would find the new U.S. tax more advantageous for locating in the United States. Avi-Yonah (1996) suggests that territorial countries might respond to a U.S. tax change by attempting to tax U.S.-source income of resident multinationals and residence-based countries would enact strict anti-deferral rules of U.S.-source income. If such policies of foreign governments were successful, the relocation of business to the United States could be prevented. As Grubert and Newlon (1996) note, the ability for such policies to succeed (and thus be enacted) is suspect, since a multinational also has the possibility of changing its country of incorporation through mergers and other actions. Musgrave (1992), in disapproving of an attempt by the United States to unilaterally adopt consumption taxation, suggests that a more likely scenario is for other countries to follow the U.S. example and abandon taxation of capital income.

²⁷ The mechanisms differ by either exempting the yield from taxation (the sales tax and personal-level flat tax) or by providing for the expensing of savings and investment but taxing the returns (the business-level flat tax and both levels of the USA tax). As a result, the taxation of the return to inframarginal investment and rents differs. A cost of capital analysis of the investment decision ignores the taxation of inframarginal (supernormal) returns. Grubert and Newlon (1995) explain how the treatment of inframarginal returns differs under the origin and destination principle for foreign-source earnings. Under the flat tax (an origin-based tax) there is an incentive to shift rent-earning activities to locations with low statutory tax rates.

2) *Changes in the Statutory Tax Rate and Tax Base*

A common feature of the three consumption tax proposals is that not only do they exempt the marginal return to capital income, but they impose a low statutory tax rate on pure rents. Under the sales tax, there is no separate business-level tax, so that rents are taxed only as they relate to the value of domestic consumption. Under the flat tax, rents are taxed at the business level at 17 percent and under the USA tax at 11 percent.

The low statutory tax rate on business income under these proposals would create incentives for MNCs to shift the reporting of income on internal transactions from high-tax countries to the United States. Where the multinational was consistent in its reporting of income to foreign authorities and to the United States, the United States would only benefit from the taxation of these shifted income amounts under the flat tax, since export earnings are exempt under the sales tax and the USA tax. Under all three taxes, however, transfer-pricing incentives might encourage firms to expand their real U.S. production activities, since presumably the larger the U.S. activity of the MNC, the easier it is to conceal its profit shifting from other locations. If increased enforcement by foreign countries of transfer pricing is not successful, foreign countries will face strong incentives to lower their statutory tax rates to prevent loss of their tax base.

The flat tax remains susceptible to U.S. transfer-pricing concerns in dealings with subsidiaries in low-tax countries. Since foreign-source earnings are exempt from taxation, but export earnings are not, there is an incentive to understate export prices to subsidiaries in low-tax countries (and similarly, to overstate import prices from subsidiaries in low-tax countries). The same incentive exists today, of course, either to benefit from deferral of tax on foreign earnings or to create lightly taxed foreign-source income to offset excess credits. Given the much lower tax rate under the flat tax than under the current income tax, however, the United States would likely find itself the beneficiary of aggressive transfer pricing by MNCs more often than the victim.

In addition, changes in the U.S. tax base give multinationals an incentive to change their financial structures under all three taxes. Interest payments on debt in the United States would not be deductible, but if this debt were assigned to operations in other countries, the firm's foreign tax payment could be reduced. Other countries would need to further refine their thin-capitalization rules to prevent loss of tax base.

In most cases, these financial changes would be a matter of indifference to U.S. tax authorities. McLure and Zodrow (1995) note, however, that the origin-based flat tax is not immune to certain financial transactions. Under this tax, export receipts of U.S. businesses are subject to tax, but receipts of interest income are not. U.S. exporters would have an incentive to engage in instalment sales with an artificially low export price and an above-market rate of interest. U.S. importers would have an incentive to deduct an above-market sales price financed by a below-market nondeductible loan. Foreign businesses are likely to be indifferent to such a relabelling. From this perspective, a destination-based consumption tax seems preferable (at least from the U.S. perspective).

3) Changes in Allocation and Apportionment Rules and Treatment of Export Income

The most significant apportionment change relative to the current income tax is that foreign-source earnings would no longer be taxable under the consumption tax proposals. While in isolation such a change would favour relocation abroad, the exemption of tax on the marginal return to capital and the low U.S. statutory tax rate would in most cases seem to favour U.S. production, as noted above.

The consumption tax proposals differ in their treatment of export earnings. Such earnings would be exempt under the sales tax and destination-principle USA tax, but be taxed under the flat tax. It is well understood by economists, however, that a uniform destination-principle consumption tax and a uniform origin-principle consumption tax have the same consequences on trade. In practice, the value-added consumption taxes typically result in non-uniform taxes across consumption items, so that there may be an effect on trade.²⁸ It is assumed that the proposed consumption taxes are uniform, so that the trade distinctions among the plans are not of importance.

Under the current income tax, there are some incentives for U.S. firms to export rather than produce for domestic consumption (the 15-percent exemption of income earned under the foreign sales corporation rules), but the larger incentives exist for firms that also produce abroad and have excess foreign tax credits that can be absorbed by relabelling one half of export income as foreign-source income (the 50-50 rule). The consumption taxes are neutral in their effects on whether to produce for domestic or foreign consumption. In this sense, export incentives are reduced under the consumption tax. However, more importantly, the consumption tax favours domestic production relative to foreign production (given that foreign taxes are not creditable), whereas the income tax favours foreign production in low-tax countries when tax on these earnings can be deferred. Given the greater domestic production that should occur under these consumption taxes, an increase in exports would be expected.

Under current law, as discussed in Sections 4 and 5, current allocation and apportionment rules slightly subsidize domestic R&D for the creation of intangible capital used abroad. One half of domestic R&D is allocated domestically, and the remainder can be allocated on the basis of foreign and domestic sales. At the same time, all foreign royalty income may be allocated to foreign-source income, despite the fact that no foreign tax may actually be paid on this income. For a firm with excess foreign tax credits, these incentives may encourage the performance of domestic R&D, which will generate know-how to be licensed abroad in exchange for royalty payments.

Under the consumption taxes, foreign-source income is exempt from taxation, so there is no incentive to generate royalty income to offset excess foreign tax credits. Grubert and Newlon (1995) show how the locational choice of an existing intangible is not distorted under a consumption tax. This effect removes the distortion that presently exists for excess-credit firms

²⁸ See Hamilton and Whalley (1986) and Feldstein and Krugman (1990).

to locate domestically created intangible assets abroad. At the same time, it may remove an incentive to perform R&D domestically, since there is no incentive to earn royalty income. The flat tax and the USA tax, however, also allow 100 percent of domestically conducted R&D to be deducted against domestic receipts. This shift creates a greater incentive to perform R&D at home, relative to the current apportionment rules. The effects of these two changes then go in different directions. Finally, the consumption taxes also remove the incremental credit for research and development, which also reduces incentives for R&D.

My evaluation of the many effects of these changes on R&D activity is that the allocation and apportionment changes cause the consumption tax to be neutral with respect to locational decisions, whereas I interpret the current effects of the income tax to slightly favour domestically conducted R&D.²⁹ As a result, there may be some reduction in R&D activity directed to foreign markets, unless these activities are complementary to the other production activities of the firm. Further relocation of R&D activity might be expected in response to the elimination of the R&D credit.

The economics literature has generally favoured subsidies for R&D activity because it is thought to confer spillover benefits that are greater than those from other investment activities. As noted by Jaffe (1995), however, this literature has generally not distinguished between the spillover effects arising from the creation of new technology and those arising from its use. If where the technology is applied matters as much as where it is developed, the substitution of domestic R&D with imported technology may not be a concern. Obviously, more research must go into this question before trying to tailor tax policy to possibly mistaken beliefs.

7. Conclusions

In the past decade, the economics literature has increasingly focussed on the international ramifications of tax provisions. The substantial changes in tax rates brought about by the 1986 Act, as well as changes in the tax base, have created an interesting "natural experiment" in which to view corporate responses. The many empirical studies that have focussed on the 1986 changes largely confirm the importance of tax rules in the behaviour of multinational corporations.

The incentives of MNCs to profit maximize lead to fairly easy-to-predict responses to changes in tax systems. A more difficult question is how other countries will respond to a unilateral change in the tax structure of another country. The many changes in tax structure of other countries contemporaneous with the *U.S. Tax Reform Act*, even if not caused by that act, are consistent with what many have predicted would be necessary to prevent significant shifts in FDI and flight of financial capital. It is interesting that by 1992, U.S. corporations appear to have faced a spread between U.S. and foreign tax rates quite comparable to what they faced in 1984.

²⁹ Hines (1993) also notes there is likely a net subsidy to domestic R&D performed for foreign markets.

Although the U.S. motivation for tax reform today, as in 1986, is largely independent of international concerns, a concern for international competitiveness may lead to a tax structure that makes the United States a more attractive location for MNCs, relative to current law. If the United States goes all the way toward replacing the current income tax structure with consumption-based taxes, other industrialized countries will face many incentives to adopt a similar tax structure.

TABLE 1
Tax Incentives for Corporate Leverage

Year	After-Tax Return on Debt	After-Tax Return on Equity	Equity Less Debt Differential
1975	.30	.315	.015
1980	.30	.332	.032
1985	.50	.392	-.108
1990	.72	.545	-.175
1995	.60	.497	-.103

Source: Data for 1975 to 1990 are taken directly from Poterba (1992), p. 49. His description of the table follows: "The first column is equal to $(1-m^*)$, where m^* is the marginal federal tax rate on interest income received by the highest-income individual investors. The second column reports $(1-\tau_{corp})(1-.5m^*-.5\tau_{cg})$, where τ_{corp} denotes the corporate tax rate and τ_{cg} the effective capital gains tax rate, defined as .25 times the statutory capital gains tax rate facing realized gains for top-bracket households. The .25 factor reflects the reduction in the effective tax rate as a result of deferral and basis step-up at death." Data for 1995 assume a top personal tax rate of .40 and a corporate tax rate of .35, reflecting the changes made by the 1993 Act.

TABLE 2
Corporate Profits and Operating Income

Years	(Profits+Interest)/ GDP	Interest/GDP	Profits/GDP	Interest/ (Profits+Interest)
1960-69	.091	.009	.082	.10
1970-79	.073	.016	.056	.23
1980-85	.067	.023	.045	.34
1986-90	.070	.024	.045	.35
1991-95	.062	.017	.046	.27

Source: National Income and Product Accounts, April 2, 1996. Data are for domestic non-financial corporations.

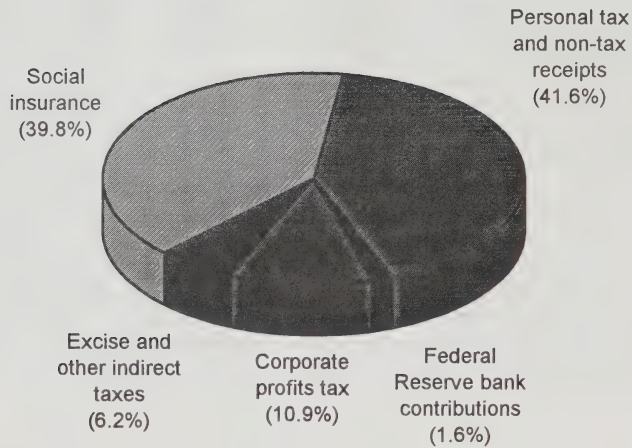
TABLE 3
Cost of Capital for Domestic Investment

Asset	Permanent Regular Tax	Equity Finance		All Debt Finance		One Third Debt Finance	
		Five-Year AMT	Five-Year Loss	Five-Year AMT	Five-Year Loss	Five-Year AMT	Five-Year Loss
Equipment	6.83	7.41	7.18	7.72	7.94	7.51	7.42
Structures	7.74	7.66	7.52	7.83	7.93	7.72	7.65
Intangible Capital	5.00	6.05	7.42	6.39	8.44	6.16	7.75
Inventory	7.58	7.54	7.43	7.65	7.69	7.58	7.51
Land	7.58	7.51	7.43	7.62	7.69	7.55	7.51
Total Capital	7.11	7.37	7.38	7.58	7.92	7.44	7.55

Note: The cost of capital net of depreciation is shown in percent under the tax law parameters in effect before 1993. The calculations assume a 5-percent after-tax real return and an inflation rate of 3.8 percent. For firms permanently on the regular tax, the cost of capital is the same under equity or debt finance. The cost of capital for total capital is a weighted combination of the cost of capital for equipment, structures, intangible capital, inventory and land.

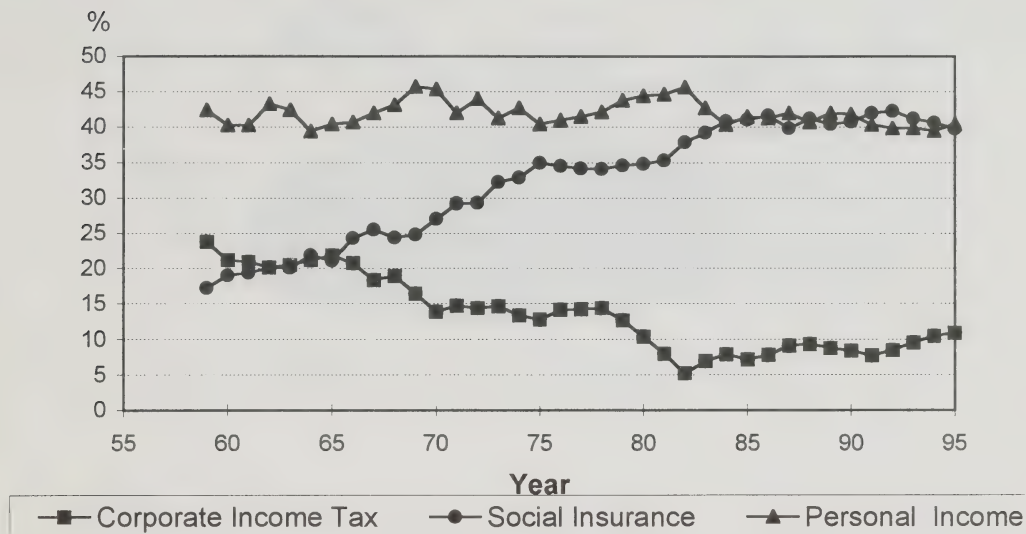
Source: Lyon (1997).

FIGURE 1
Federal Revenue Sources, 1995



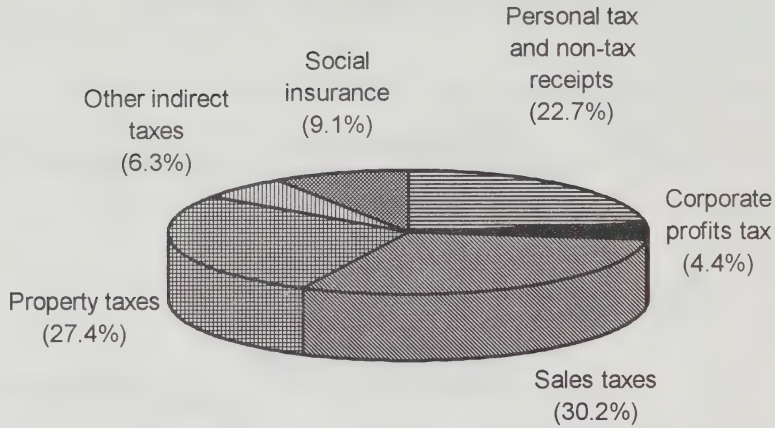
Source: *National Income and Product Accounts*, April 1996.

FIGURE 2
U.S. Federal Revenue Sources
as Share of Federal Receipts, 1959-95



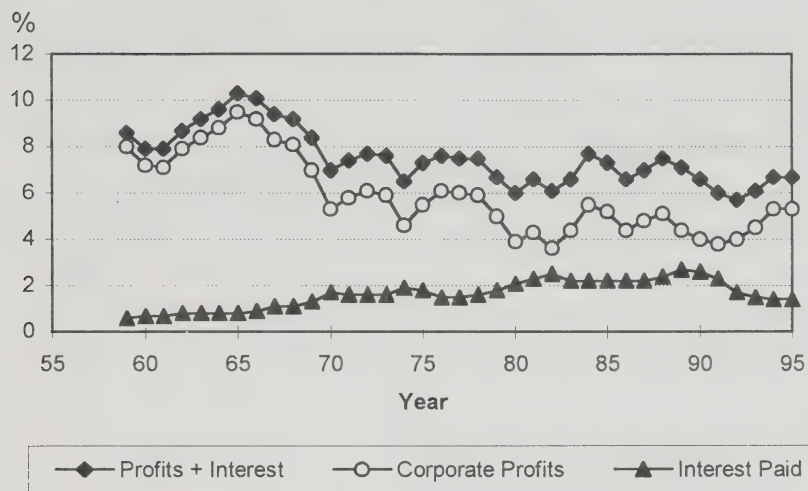
Source: *National Income and Product Accounts*, April 1996.

FIGURE 3
State and Local Revenue Sources, 1995



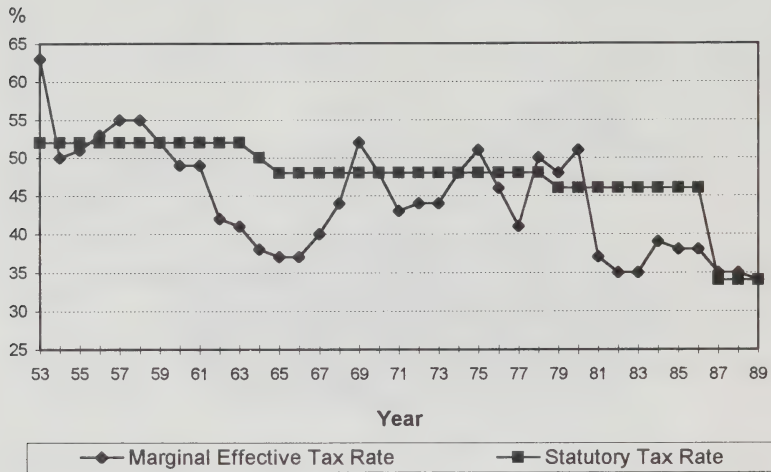
Source: *National Income and Product Accounts*, April 1996.

FIGURE 4
Corporate Profits as Share of GDP, 1959-95



Source: *National Income and Product Accounts*, April 1996.

FIGURE 5
Corporate Tax Rates, 1953-89



Source: Gravelle (1994), Table 2.1 and computations prepared by Gravelle.

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Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

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The Economic Effects of Dividend Taxation

Kenneth J. McKenzie
University of Calgary

Aileen J. Thompson
Carleton University

December 1996

WORKING PAPER 96-7

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

The Economic Effects of Dividend Taxation

Kenneth J. McKenzie
University of Calgary

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Carleton University

December 1996

WORKING PAPER 96-7

Prepared for the
Technical Committee on Business Taxation

Comments on the working papers are invited and may be sent to:

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Abstract

In this paper we investigate the theoretical rationale for and implications of dividend taxation in a Canadian context. We focus in particular on the implications of dividend taxation for real investment. Three views of dividend taxation are described, each of which has different implications for investment and firm financial policy. Some of the literature which investigates the empirical relevance of these three views is reviewed. We tentatively conclude that there is some support for the “traditional” view that dividend taxes dampen investment. Accepting this as the relevant view, we perform some rough calculations of the impact of eliminating integration in Canada on the cost of capital, and speculate upon the possible investment effects of this hypothetical policy.

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1. Introduction

The purpose of this paper is to briefly survey some issues related to the taxation of dividends and the integration of the personal and corporate income tax systems. It will focus on the general economic rationale for integration, and in particular on the implications of dividend taxation for stock values, dividend policy and real investment. While some of the relevant theoretical and empirical results found in the literature will be discussed, this paper is not meant to be an exhaustive survey; rather our intent is to highlight what we think are some of the key issues related to the taxation of dividends.¹

The following section lays out these issues more formally. This includes a theoretical presentation of the rationale for and the effects of dividend taxation. Section 3 discusses some of the empirical findings in this literature, focussing on the response of stock market prices, dividend-payout ratios and investment-to-dividend taxation. Section 4 provides concluding remarks and presents some illustrative calculations that show how dividend taxes may affect the user cost of capital, and therefore real investment, in Canada.

An understanding of the impact of dividend taxes on investment and firm financial policy is a critical step in the evaluation of existing and proposed integration schemes. Unfortunately, opinions differ regarding the economic impact of dividend taxation. In particular, three “views” dominate the literature, each implying that dividend taxes affect investment, financial policy and equity prices in different ways. While some tentative conclusions are possible, a solid consensus has not emerged on which of these three views provides the best description of the economy. In our judgment, the current “state of the art” gives a slight edge to the view that dividend taxes act to dampen both investment and dividend payouts, at least for some firms, although the results are by no means conclusive. More empirical investigation, particularly in a Canadian context, is badly needed.

2. Dividend Taxation: A Discussion of the Issues

In this section, we lay out the key issues relating to the taxation of dividends. In the following subsection, we summarize the arguments for integrating corporate and personal taxes. We then turn our attention to the main focus of the paper: the implications of dividend taxation for investment.

2.1 Why Integration?

In order to avoid a discussion of the merits of consumption vs. income taxation, we take as our starting point the maintained assumption that the objective of the tax system is to tax comprehensive income, and that separate taxes are levied on individuals and corporations.

¹Devereux (1996) examines some of the issues not dealt with here, particularly those related to loss companies and the role of minimum taxes on dividend payments, in a review of the integration of personal and corporate taxes in Europe.

While it is by no means obvious that either of these features would characterize a “socially optimal” tax system, or that tax policy in Canada has been dominated by an effort to achieve this objective, these assumptions help to limit the scope of the discussion, and have the merit of accepting the basic structure of the Canadian tax system as given. Modifying the current tax system to tax consumption rather than income would involve exempting capital income, including dividends, from taxation altogether.

From the perspective of a comprehensive income tax, the separate taxation of individuals and corporations presents a problem because income derived from the corporate sector and subsequently passed on to individuals will be subject to “double taxation” – having been taxed initially at the corporate level and again at the personal level. Under a comprehensive income tax, all income should be taxed as it accrues, and at the same rate (or according to the same rate schedule), no matter how it is earned. In particular, capital income arising from saving should be taxed at the same rate as non-capital income, and all capital income – dividends, capital gains, interest, rent, etc. – should be taxed at the same rate. It is within this context that the integration of the personal and corporate tax systems is most commonly discussed.

Viewed in this light, corporate income tax can be thought of as performing an important withholding function, with the corporation paying taxes on behalf of its shareholders.² Without a corporate tax, individuals could accumulate income tax-free within the corporation, unless capital-gains taxes could be levied on an accrual basis. While some have argued that the difficulties with taxing capital gains on accrual can be overcome, at present most countries that tax capital gains, including Canada, do so on realization.³ In the absence of an accrual-based capital-gains tax, the corporate tax thus plays a withholding role.⁴ But if corporate taxes are viewed as a withholding tax, at least in part, then when income is distributed to shareholders as dividends, they should be given credit for the taxes that have been paid on their behalf at the corporate level. If this credit is not given, the income distributed as dividends is taxed twice, bearing a higher tax rate than other income. This is the basic motivation for the dividend tax-credit system as it is employed in Canada.

The Canadian integration system provides a *notional* credit for taxes paid at the corporate level on dividends distributed to individuals. In theory, the so-called “gross-up and credit” system works as follows. Say that after the payment of corporate taxes at the rate u , a firm pays out \$1 in dividends. These dividends are then grossed-up by a factor of $1/(1-d)$, where d is the notional dividend tax-credit rate, giving taxable dividends of $\$1/(1-d)$, which are taxed at the personal tax rate m , for a gross (before tax credit) tax liability on the \$1 dividend of $\$m/(1-d)$. The individual is then given credit for taxes paid on the grossed-up dividends at the corporate level at the notional rate of d ; this credit is $\$d/(1-d)$. The individual's final tax liability, net of the dividend tax credit, is then $\$m/(1-d) - d/(1-d)$, which, remembering that this all started with a \$1 dividend payment to the individual, suggests an effective personal tax *rate* on dividends of,

²For other views of the corporate income tax, see Mintz (1995).

³For more on the taxation of capital gains on accrual, see Auerbach (1991).

⁴Moreover, to the extent that there are foreign shareholders, the corporate tax generates revenue from foreign direct investment. Without a corporate tax, this revenue would be transferred to foreign treasuries.

$$\theta = \frac{m-d}{1-d} \quad (1)$$

Full, or complete, integration, requires that the notional dividend tax-credit rate equal the corporate tax rate u (that is, $d=u$), in which case $\theta=(m-u)/(1-u)$. When this is the case, the \$1 dividend is grossed-up to its corporate taxable income equivalent, the personal tax rate is applied to this income, and then full credit is given for the corporate taxes already paid on this income. To see this, note that given a corporate tax rate of u , in order to pay out \$1 to the shareholder after the payment of corporate taxes, the corporation must generate taxable income of $\$1/(1-u)$ (i.e. with taxable income of $\$1/(1-u)$, corporate taxes levied at the rate u leave $\$(1/(1-u))(1-u)=\1 after tax). Corporate taxes on this taxable income are $\$u/(1-u)$, which is exactly the amount of the dividend tax credit when $d=u$. Total taxes paid on the taxable income generated within the corporation and distributed to individuals as dividends then amount to $\$ \theta + u/(1-u)$, which is the sum of personal plus corporate taxes. Remembering that these are total taxes paid out of taxable corporate income of $\$1/(1-u)$, the *total effective tax rate* on this income is $[\theta + u/(1-u)]/[1/(1-u)]$, or,

$$\tau = \theta(1-u) + u \quad (2)$$

Under full integration $\theta=(m-u)/(1-u)$, in which case the total effective tax rate is $\tau=m$, the full personal tax rate. Without the dividend tax credit, i.e. if the individual were not given credit for taxes paid on his/her behalf at the corporate level, $d=0$ and the effective total tax rate on income derived in the corporation is $\tau = m + u(1-m)$, which exceeds m – the income is “double taxed.”⁵

Thus, we see that under full integration, the total effective tax rate on income derived in the corporation and distributed as dividends is simply the individual's personal tax rate, m , which (in principle) is applied to all income, and the basic principle behind comprehensive income taxation – that all income be taxed at the same rate – is preserved. Or is it? Two complications were ignored in the above discussion. Both of them have to do with the fact that the integration approach outlined above, and followed in Canada, grants a *notional* credit for taxes paid at the corporate level. This credit may bear no relationship to the taxes *actually paid* by the corporation. The notional credit and the actual taxes paid may differ for two reasons. First, it is possible that the corporation did not pay any taxes at all in the year in which the dividends were paid. This could occur, for example, if the firm is in a tax-loss position. When this is the case, the granting of the notional credit results in *over integration* – the total effective tax rate on dividends is less than the personal tax rate m . To see this, consider the extreme case where the dividend-paying firm never pays corporate taxes, perhaps because of generous corporate tax provisions, in which case u is effectively equal to 0. Then the granting of a notional dividend tax credit at rate d gives rise to a total effective tax rate of $(m-d)/(1-d)$ that is less than m , and dividends are taxed at a lower rate than other income. While there are ways of dealing with the

⁵Tax systems that provide no integration are called “classical” tax systems. This is the approach, for example, taken in the United States.

problems caused by dividend-paying tax loss firms, Canada currently has no such provisions in place.⁶

A second complication that arises due to the use of the notional dividend tax credit occurs when the corporate tax system imposes different *statutory* tax rates on different firms. In Canada, for example, Canadian-controlled private corporations (CCPCs) are eligible for a small business deduction (SBD), which effectively lowers the tax rate on the first \$200,000 of income from the full corporate rate of 28 percent (federal) to 12 percent (federal).⁷ Also, manufacturing companies in Canada are taxed at a rate of 21 percent on their manufacturing and processing income rather than 28 percent.⁸ Clearly, in the presence of multiple statutory corporate tax rates, there is no *common* notional dividend tax-credit rate that provides full integration for dividends received from all companies. Full integration would require *different* notional rates for dividends received from CCPCs and non-CCPCs, manufacturing and non-manufacturing, loss and non-loss companies, etc.⁹

The Canadian approach has been to set a common dividend tax-credit rate to ensure (approximately) full integration for small businesses. Thus, $d=u$ (approximately) for small CCPCs, and $d<u$ for non-CCPCs. If a common dividend tax-credit rate is imposed, it probably makes sense to set it to fully integrate CCPCs, because they face the lower tax rate. To see why, consider the implications of setting d to fully integrate large non-CCPCs instead. In this case, CCPCs would be over-integrated, suggesting that dividends paid by them would be tax preferred. Since CCPCs are privately controlled, this gives rise to obvious tax planning possibilities – owner/managers of CCPCs could lower their salaries, which are taxed at the full rate m , and “pay” themselves in dividends instead, which would be taxed at an effective rate that is less than m if the dividend tax-credit rate is greater than the CCPC tax rate. Integration policy in Canada seems to have been dominated by attempts to prevent this type of tax planning. The inevitable “side effect” of this preoccupation is the *under-integration* of non-CCPCs, whereby – ignoring the presence of tax-loss firms – income derived in these firms is taxed at a total effective rate that is greater than the personal tax rate m (i.e. $[(m-d)/(1-d)]+u/(1-u)>m$ for $d<u$).

The notional gross-up and credit approach outlined above roughly describes the approach followed in Canada. The Canadian system deviates slightly from the “theoretical ideal” due to the presence of differential personal and corporate tax rates, surtaxes, and flat taxes at the provincial level. Currently, the dividend tax-credit rate is 20 percent of grossed-up dividends presuming a provincial tax rate of 50 percent of the federal rate, therefore $d=.2$ and $1/(1-d)=1.25$.¹⁰ In Alberta, for example, this means that a top-bracket investor would face an effective marginal *personal* tax

⁶See Devereux (1996) for a discussion of the Advance Corporation Tax (ACT), which is designed to deal with this problem.

⁷These rates do not include the 4% federal surtax, which increases the rates to 29.12% and 13.12% respectively (note that the surtax is applied to the full corporate tax rate facing non-CCPCs).

⁸The full surtax inclusive tax rate on manufacturing is 22.12%, as the 4% surtax is applied to the full tax rate before the manufacturing and processing deduction.

⁹A further complicating factor is that many companies are taxed at the manufacturing rate on only some of their income, implying a “blended” statutory rate somewhere in between the full rate and the lower manufacturing rate.

¹⁰See footnote 11.

rate on dividends of $\theta=31.4$ percent.¹¹ The *total* effective tax rate on dividends would then depend upon the tax characteristics of the company paying the dividends. Again using the example of an Alberta corporation, if the dividends were paid by a fully taxpaying non-manufacturing, non-CCPC, the total effective tax rate would be $\tau=62.01$ percent; if the dividends were paid by a fully taxpaying non-manufacturing CCPC taxed at the small business rate, the total effective tax rate would be $\tau=44.52$ percent.¹² The full marginal tax rate facing a high-bracket Albertan on ordinary (non-dividend) income is 46.07 percent.¹³ We thus see that the total tax rate on dividends distributed by a (fully taxpaying) CCPC is similar to the tax rate on ordinary income, while the total tax rate on dividends distributed by a (fully taxpaying) non-CCPC is substantially higher – dividends from CCPCs are fully integrated, those from non-CCPCs are under-integrated.

2.2 Taxes and Investment

With the above background in hand, we are now in a position to consider the issue of the potential impact of dividend taxes on real investment. More precisely, in terms of the Canadian policy environment, does the (partial) relief of double taxation in Canada act to encourage investment; or, conversely, would the elimination (or reduction) of integration discourage investment? Put yet another way, does the under-integration of tax paying non-CCPCs discourage investment by these corporations, or does the (possible) over-integration of tax-loss firms encourage investment? It is to these very difficult and somewhat contentious questions that we now turn.

Neo-classical investment theory provides the key link between the taxation of dividends and real investment. As is well-known, standard neo-classical investment theory posits that value-maximizing firms will employ capital up to the point where the rate of return on the marginal unit of capital is just equal to the user cost of capital.¹⁴ Ignoring taxes for the moment, the user cost of capital is equal to the price of a unit of capital (relative to the price of output), q ,

¹¹Various nuances in the tax code make the calculation somewhat more complicated than suggested above. The top federal marginal rate is 29%. High-bracket taxpayers also face a federal surtax of 8%. The basic tax rate in Alberta in 1995 is 45.5% of the federal rate, before the surtax. Alberta also imposes an 8% surtax on high-bracket taxpayers, and a 0.5% flat tax on taxable income measured before the dividend tax credit. The dividend tax credit rate for federal purposes is 13.33%, which gives a combined federal and provincial value for d of 20%, assuming a provincial tax rate of 50% of the federal rate. The effective marginal tax rate on dividends is then calculated as follows:

$$\text{federal} = 1.25 * .29 = .3625 - (.1333 * 1.25) = .1959 * 1.08 = .2116$$

$$\text{provincial} = .1959 * .455 = .0891 * 1.08 = .0962 + (.005 * 1.25) = .1024$$

Therefore the combined federal plus provincial marginal effective personal tax rate on dividends is 31.4%.

¹²The Alberta tax rate on non-manufacturing, non-CCPCs is 15.5%; the tax rate on manufacturing non-CCPCs is 14.5%; manufacturing and non-manufacturing CCPCs are taxed at a 6% rate. Including the federal 4% surtax, the combined federal plus provincial tax rate (u) is thus 44.62% for non-CCPC non-manufacturing companies; 36.62% for non-CCPC manufacturing companies; and 19.12% for manufacturing and non-manufacturing CCPCs.

¹³This is calculated as follows:

$$\text{federal} = .29 * 1.08 = .3132$$

$$\text{provincial} = .29 * .455 = .1319 * 1.08 = .1425 + .005 = .1475$$

For a combined rate of 46.07%.

¹⁴ See, for example, Auerbach (1983), Poterba and Summers (1985) and Boadway (1987).

multiplied by the sum of two terms: the opportunity cost of the funds tied up in the capital, which we denote by r , and the economic rate of depreciation of the asset, which we denote by δ .¹⁵ Letting $R(K)$ represent the return on an *incremental* unit of capital employed, which is presumed to be a declining function of the total amount of capital K , a value-maximizing firm will increase K until $R(K)=q(r+\delta)$. The opportunity cost of finance to the firm, r , is the rate of return the firm's stakeholders (debt and equity holders) could earn by investing elsewhere. Thus, if 100b percent of the marginal investment is finance by debt and 100(1-b) percent is financed by equity (either retained earnings or new share issues), the opportunity cost of finance is a weighted average $r=bi+(1-b)p$, where i is the rate of return required by debt holders and p the rate of return required by equity holders. Thus, the marginal unit of capital "breaks even" in the sense that it generates a return just high enough to cover the decline in the economic value of the capital (its economic depreciation) and satisfy debt and equity holders.

Taxes levied both on the firm directly and on its shareholders can, in principle, affect investment through their impact on the user cost of capital. To begin, consider the imposition of a very simple corporate income tax, assuming for the moment that no taxes are levied on the dividends or capital gains received by shareholders.¹⁶ The tax lowers the return on an incremental investment to $R(K)(1-u)$, where u is the corporate income tax rate. The tax also lowers the cost of capital due to the presence of various deductions. For example, debt interest is deductible for corporate tax purposes, while the required rate of return on equity is not; this lowers the firm's opportunity cost of finance to $r_f=bi(1-u)+(1-b)p$.¹⁷ Also, the firm can claim a stream of tax depreciation, or capital cost allowances (CCA), over time, which can be viewed as lowering the effective after-tax price of a unit of capital from q to $q(1-uZ)$, where Z is the present value of the CCA deductions.¹⁸ In the presence of this very simple corporate tax, a firm will invest in capital up to the point where the after-tax return on the marginal unit of capital is equal to the after-tax cost of the capital, or $R(K)(1-u)=q(r_f+\delta)(1-uZ)$, which can be written as

$$R(K)=q(r_f+\delta)\left[\frac{1-uZ}{1-u}\right] \quad (3)$$

¹⁵The economic rate of depreciation is the proportionate change in the market value of the capital, due to either physical depreciation or a changes in market conditions. For simplicity, we ignore risk and inflation in the descriptive analysis. They are straightforward to include. For example, it is straightforward to introduce uncertainty by way of some equilibrium asset-pricing model. For instance, if we employed the Capital Asset Pricing Model (CAPM) we would replace r with $R_f+(R_m-R_f)B$, where R_f is the after-tax risk free interest rate and B is the security's "beta."

¹⁶Federal and provincial taxes on capital, sales taxes on capital, investment tax credits, etc., are ignored for simplicity. They are included in the calculations presented in Section 4.

¹⁷In the absence of other capital market imperfections, the granting of debt interest deductibility would suggest that firms should completely debt finance all investments (i.e. set $b=1$). Several theories have been postulated to explain why firms still use equity finance despite its tax disadvantage. For example, if one presumes that the risk of bankruptcy or financial distress increases as the debt/asset ratio (b) increases, and that the interest rate on the firm's debt therefore increases with b , the firm will trade off the bankruptcy cost of additional debt against the tax benefits and arrive at an optimal "interior" financial policy whereby some portion of the marginal investment is financed by debt and some portion by equity. See Auerbach (1983).

¹⁸Under a very simple declining balance system with a CCA rate of α , $Z=\alpha/(r_f+\alpha)$.

The right-hand side of equation (3) is called the *tax adjusted user cost of capital*. If the proportionate decline in the return on the marginal investment due to the tax is greater than the decline in the user cost of capital due to the various deductions (i.e. the tax-adjusted user cost of capital in (3) is greater than $q(r+\delta)$), then the imposition of the corporate tax discourages investment.¹⁹

In equation (3), the imposition of the corporate income tax affects the user cost of capital directly. Personal taxes levied on the dividends and capital gains received by shareholders can affect the user cost of capital “indirectly” via their impact on the opportunity cost of finance, r_f .²⁰ It turns out that the impact of personal taxes on the cost of finance depends upon the assumptions one makes regarding the marginal source of funds and the characteristics of financial markets. Unfortunately, there is no widely accepted model of corporate financial behaviour, and there are many unanswered questions. Indeed, economists do not have a fully satisfactory explanation for why some firms pay dividends at all, much less how taxes imposed on those dividends may affect investment.

2.2.1 Three Views of Dividend Taxation

There are three prevailing views of how dividend taxes levied on shareholders may affect corporate investment, financial policy and equity values.²¹ These three views are commonly known as: 1) the “new” view; 2) the “traditional” view; and 3) the “tax irrelevance” view. Both the new and the traditional views of dividend taxation begin with the premise that dividends are taxed at a higher *effective* rate than are capital gains. It is important to emphasize the word “effective” here, because capital gains may not only face a lower statutory rate than dividends, but also are typically taxed upon realization, not on accrual. Thus, the *effective accrual equivalent* capital-gains rate, which takes account of the fact that the present value of capital-gains taxes can be lowered by postponing realization, can, in principle, be quite low; indeed many researchers presume that it is very close to zero.²² The key distinction between the new and the traditional views, then, concerns the marginal source of equity funds used to finance incremental investment, in particular whether the marginal source of equity is retained earnings (as presumed under the new view), new share issues, or some combination of both (as presumed under the traditional view).

The tax irrelevance view, on the other hand, concerns the tax characteristics of the marginal investors. It rejects the presumption of the new and the traditional views that the effective tax rate on dividends need be higher than the effective tax rate on capital gains for the marginal investor.

¹⁹Remember that $R(K)$ is declining in K , so that an increase in the user cost of capital due to the tax means that K must decline so that $R(K)$ may increase until the marginal unit of capital generates a rate of return that just covers its (now higher) user cost.

²⁰The imposition of dividend taxes may have another “indirect” effect as well. By taxing the return to capital (in this case in the form of dividends), taxes may lower domestic savings and affect the domestic interest rate. The discussion that follows is a partial equilibrium one, which treats the interest rate as fixed.

²¹See Poterba (1987), Poterba and Summers (1983 and 1985), and Zodrow (1991) for a discussion.

²²McKenzie and Thompson (1995a) suggest the accrual equivalent rate in Canada is anywhere from zero to 10%.

The “New” View of Dividend Taxation

Since both the new and the traditional views of dividend taxation begin with the presumption that dividends are taxed at a higher effective rate than are capital gains, an important challenge for both views is to explain the so-called “dividend puzzle” – why do corporations choose to distribute earnings as dividends despite their tax disadvantage? Why don't firms distribute earnings in less tax-penalized ways, such as share repurchases where the proceeds are taxed at the preferential capital-gains rate? The explanation that is offered by proponents of the new view is that many firms pay dividends simply because they have no choice – after financing all of their investment opportunities, and exhausting all other outlets for their funds, they have excess cash flows that can only be distributed in the form of dividends. Thus, under the new view, dividends are essentially a residual – funds that are left over after the company has satisfied all of its other obligations. This means that retained earnings are the marginal source of finance for these firms and, lacking tax preferred channels for distributing income to shareholders, the equity in these firms is “trapped” – the only way to channel income to shareholders is by dividends. Thus, the new view of dividend taxation is often referred to as the “trapped equity” view.

To see why the marginal source of funds is important, consider the following extension of the neo-classical investment model presented above. For simplicity, we now assume that there is no debt finance and that the economic rate of depreciation (δ) is zero. We also assume that the relative price of a unit of capital, q , is one. Imagine a firm that relies on new share issues as the marginal source of funds. Specifically, suppose that a firm issues \$1 in new shares, uses the funds to invest in new capital and then pays the resulting return to the shareholders in the form of dividends that are taxed at the personal rate θ ; in Canada, θ would be given by equation (1) above. Taking account of the present value of the tax depreciation deductions, the firm effectively has $\$1/(1-uZ)$ to invest in capital, which generates a return of $(1-u)[1/(1-uZ)]R(K)$, after the payment of corporate taxes at the rate u . This return is distributed as dividends, and taxed at the rate θ , yielding an after-tax return of $(1-\theta)(1-u)[1/(1-uZ)]R(K)$. The shareholders are better off if this rate of return exceeds their required after-tax rate of return on equity (ρ). Since $R(K)$ is decreasing in the amount of capital employed, K , the firm will continue to issue new shares to finance additions to its capital stock up to the point where $(1-\theta)(1-u)[1/(1-uZ)]R(K)=\rho$, or

$$R(K) = \frac{\rho}{1-\theta} \frac{(1-uZ)}{(1-u)} \quad (4)$$

Comparing this to equation (3), and recalling that we have set $\delta=0$, $q=1$, and presumed all equity financing for simplicity, we see that when the marginal source of funds is new share issues, the taxation of dividends raises the opportunity cost of finance to the firm (r_f), and increases the tax-adjusted user cost of capital, thereby lowering investment. Thus, we see that when new share issues are the marginal source of equity finance, dividend taxes levied on individuals discourage corporate investment.

But, as indicated above, the new view presumes that for many firms, retained earnings are the marginal source of equity finance. To see the implications of this, suppose that instead of distributing the returns from a \$1 new share issue as taxable dividends, the firm retains the funds within the corporation, and reinvests them in new capital. The shareholders would thereby avoid paying taxes on the dividends at rate θ . Ignoring for the moment the present value of the CCA deductions, this leaves the corporation with $1/(1-\theta)$ to invest. However, retaining earnings of this amount generates a capital gain, which is taxed at the effective rate c . Thus, the firm is effectively left with $(1-c)/(1-\theta)$ to invest, or $(1-c)/((1-\theta)(1-uZ))$ after accounting for the present value of the CCA deductions. Investing this amount in capital, generates a return of $[(1-c)/((1-\theta)(1-uZ))](1-u)R(K)$ after the payment of corporate taxes, or $(1-\theta)[(1-c)/((1-\theta)(1-uZ))](1-u)$ after these returns are paid out as dividends and taxed at the rate θ . Note that the terms $(1-\theta)$ cancel out, leaving a return of $[(1-c)(1-u)/(1-uZ)]R(K)$ on an incremental investment. As before, with $R(K)$ declining in K , the firm will continue to finance capital additions with retained earnings until this rate of return is equal to the required after-tax rate of return on equity, ρ , or $[(1-c)(1-u)/(1-uZ)]R(K)=\rho$, which can be rewritten as:

$$R(K) = \frac{\rho}{1-c} \frac{(1-uZ)}{(1-u)} \quad (5)$$

This is the new view result that investment financed with retained earnings at the margin is unaffected by the taxation of dividends (note, however, that investment is discouraged by the taxation of capital gains). Because it is presumed under the new view that the effective tax rate on capital gains is less than the effective tax rate on dividends ($c < \theta$), the opportunity cost of finance is lower under retained-earnings finance, and corporations will choose this form of equity finance when possible.

If we now reintroduce the possibility of debt finance and allow for $\delta > 0$, under the new view the user cost of capital is as stated in equation (3), with the opportunity cost of finance given by,

$$r_f = bi(1-u) + (1-b)\frac{\rho}{1-c} \quad (6)$$

Again, the important implication here is that a (permanent) change in the effective tax rate on dividends will have no impact on investment, so long as retained earnings remain the marginal source of equity finance.²³

Although changes in the taxation of dividends are not expected to affect investment under the new view, they may still have distributional implications through their impact on equity prices. Because under the new view it is presumed that capital gains are taxed at a preferential rate relative to dividends (i.e. $\theta > c$), changes in the tax rate on dividends will affect equity prices. To

²³ As pointed out by Poterba and Summers (1985), changes in dividend taxes that are expected to be temporary can, however, affect investment.

see this, consider that in equilibrium the after-tax rate of return on an investment – obtained through dividends and capital gains – must equal the rate of return required by shareholders:

$$\rho = \lambda(1 - \theta) + g(1 - c) \quad (7)$$

where λ is the dividend yield on the security and g is the expected rate of capital gain. The effective dividend and capital-gains tax rates are those of the *marginal* investor. Rearranging this allows us to write the required expected rate of capital gain as follows:

$$g \equiv \frac{P^e - P}{P} = \frac{\rho}{1 - c} - \lambda \left[\frac{1 - \theta}{1 - c} \right] \quad (8)$$

where P is the current price of the stock and P^e is the expected price next period. Totally differentiating equation (8) with respect to θ gives an expression for the proportional change in the current price of the stock due to the change in the tax rate on dividends:

$$\frac{dP}{P} = - \left[\frac{P}{P^e} \right] \frac{\lambda}{1 - c} d\theta \quad (9)$$

An increase in the effective tax rate on dividends for marginal investors in the security ($d\theta > 0$) will thus lead to a decrease in the price. Moreover, the magnitude of the price decrease is positively related to the dividend yield (λ) – the higher the dividend yield the greater the drop in price. Thus, although the new view suggests that investment will be unaffected by the taxation of dividends, it still predicts an impact on stock prices. This suggests that changes in the taxation of dividends can result in windfall gains or losses for current equity holders.

Finally, since under the new view dividends are essentially determined residually, dividend taxes should have no impact on firm financial policy. In particular, dividend-payout rates should be independent of the level of dividend taxation.

The “Traditional” View of Dividend Taxation

The new view of dividend taxation discussed above explains the “dividend puzzle” – the fact that firms pay dividends despite the tax penalty – by arguing that firms have excess cash flows and that equity is therefore “trapped” within the corporation and can only be distributed as dividends. Thus, under the new view, dividends are simply a way of distributing income, and are not seen to be intrinsically valuable in their own right. The “traditional” view of dividend taxation also accepts the presumption that dividends are tax penalized, but resolves the dividend puzzle in a different way – by claiming that, for some reason, shareholders value dividends independently of their role as a distribution mechanism. Thus, firms trade off the intrinsic benefits of paying dividends against the tax costs.

Proponents of the traditional view vary in the assumptions they make about the source of the intrinsic value of dividends. As pointed out by Poterba (1987), explanations typically focus on three things. First, dividends may play a signalling role in the presence of asymmetric information

regarding the firm's prospects. By paying tax penalized dividends, the firm's managers may signal to shareholders their confidence in the company's prospects.²⁴ Second, dividends may help alleviate agency problems arising from the inability of shareholders to costlessly monitor managers. By paying out dividends, the "free cash flow" within the company is reduced, which reduces the scope for managerial discretion, and therefore, it is argued, for the consumption of perquisites.²⁵ Third, the distribution of dividends may aid shareholders in consumption planning.²⁶

The traditional view argues that firms pay out dividends despite the availability of tax-preferred ways of distributing income in order to obtain some of these benefits, whatever the source. At the margin, the benefits of paying out dividends should exactly equal the tax cost of issuing dividends instead of repurchasing shares.

Once the trade-off involved under the traditional view is understood, the implications for the opportunity cost of finance facing the firm are straightforward. Following Poterba (1987), to represent the intrinsic value of dividends, write the required return on equity (ρ) as a function of the dividend-payout ratio (α) – with $\rho'(\alpha) < 0$ representing the fact that as dividend payouts increase the required rate of return on equity falls, which captures the idea that dividends have intrinsic value to shareholders. The firm then chooses to minimize the opportunity cost of equity finance, which generates the following pre-tax return required to provide shareholders with an after-tax rate of return of ρ :

$$\frac{\rho(\alpha^*)}{(1 - \theta\alpha^* - c(1 - \alpha^*))} \quad (10)$$

where $\alpha^* = \alpha(\theta, c)$ is the firm's optimal choice of the dividend-payout ratio expressed as a function of the tax rate on dividends and the tax rate on capital gains. Under the traditional view, the firm trades off the tax cost of dividends against the intrinsic benefits by choosing the dividend-payout ratio (α) until it is indifferent at the margin between new-share issues and retained earnings as a source of finance. This suggests that, unlike the new view, dividend-payout ratios will depend upon the tax rates on both dividends and capital gains. In particular, an increase in the tax rate on dividends should lead to a reduction in the dividend-payout rate, as the tax cost of achieving the intrinsic benefits of dividend payments rises.

From (10) it is apparent that under the traditional view, the opportunity cost of equity finance to the firm reflects a weighted average of the effective tax rates on dividends and capital gains ($\theta\alpha^* + c(1 - \alpha^*)$). Thus, (ignoring debt) marginal investments are financed by a combination of

²⁴For an early example of the signalling model see Miller and Rock (1985).

²⁵Easterbrook (1984) provides a summary of some agency models.

²⁶See Shefrin and Statman (1984) and Shleifer and Vishny (1986).

retained earnings and new-share issues. Allowing for the possibility of debt finance, under the traditional view the tax-adjusted user cost of capital is as stated in equation (3), with the opportunity cost of finance given by:

$$r_f = bi(1-u) + (1-b) \frac{\rho(\alpha^*)}{1 - \theta\alpha^* - c(1-\alpha)} \quad (11)$$

Referring to equation (11), consider the implications of an increase in θ on the opportunity cost of finance. Unlike the new view, the traditional view predicts that an increase in the tax rate on dividends will depress investment by increasing the opportunity cost of finance, and therefore increasing the tax adjusted user cost of capital.

Finally, because the traditional view presumes that dividends are taxed at a higher effective rate than are capital gains, like the new view it predicts that equity prices will reflect the tax penalty imposed on dividend-paying stocks. As such, the analysis in the previous section on the implications of dividend taxes for stock prices applies for the traditional view as well. In particular, changes in the effective tax rate on dividends will generate windfall gains or losses for shareholders.

The Tax Irrelevance View of Dividend Taxation

Both the new view and the old view accept the idea that dividends are taxed at a higher rate than capital gains for marginal investors, and are therefore penalized in the stock market. They differ, however, in their explanation of the dividend puzzle. The difference hinges on whether or not dividends have an intrinsic benefit against which the tax cost may be traded off. The tax irrelevance view offers yet another explanation. Proponents of this view reject the notion that dividends are in fact taxed at a higher rate than dividends for marginal investors, and therefore that they are tax-penalized in the equity market. Indeed, a common version of the tax irrelevance view suggests that both capital gains and dividends are effectively taxed at a zero rate for marginal investors, and therefore that dividend taxes are completely irrelevant, with respect to both investment and the determination of equity prices.

To see the reasoning behind this view, note first that tax rates can vary substantially across individual investors. This gives rise to the possibility of *tax clienteles*, where investors with certain tax characteristics are more likely to hold certain types of assets than investors with other tax characteristics – i.e. individuals or institutions facing low tax rates on dividends will specialize in stocks with high-dividend yields, and individuals facing high-dividend tax rates will specialize in low-yield (growth) stocks. Indeed, under perfect certainty, investors “should” completely specialize in assets according to their tax rates (see Miller (1977)). When uncertainty is introduced, investors may no longer completely specialize. Instead, they may hold assets that are not tax favoured (from their perspective) but that provide some diversification benefits. In this environment, if tax rates, risk preferences and transaction costs differ among investors, a group of investors may emerge as the “marginal investor clientele,” who are just indifferent between holding the firm's equity vs. some other financial asset that is taxed differently. It is the dividend

tax rate faced by the marginal investor clientele that enters the user cost of capital expression and determines the price of equity in the stock market.

Particularly important in this regard is the fact that there are a number of tax clienteles that do not pay taxes on dividends or capital gains at all; for investors in these clienteles, $c=\theta=0$. Examples of such investors include pension funds, universities, charities and individuals investing in stocks through their RRSPs.²⁷ Moreover, for institutional investors such as brokerage firms, both capital gains and dividends are taxed at the full corporate rate. If any of these groups form the marginal clientele, or play an important role in determining the value of the firm, changes in things like the dividend tax credit will not have an appreciable impact on either the price of equity or on the user cost of capital, because the effective tax rate on dividends for the marginal clientele is zero – dividend taxes are irrelevant.

Particularly important for a small open economy like Canada is the fact that foreign non-resident investors are taxed differently than resident shareholders – in particular, they are not eligible for the dividend tax credit (and therefore their dividend income is not integrated with the corporate tax). Boadway and Bruce (1992) show that when this is the case in a small open economy setting with perfectly mobile capital, efforts to eliminate the double taxation of domestic shareholders via a dividend tax credit may have no impact on investment, regardless of how it is financed. This is because non-resident shareholders may be the marginal investors.

The analysis of Boadway and Bruce has special significance for Canada, as it suggests that the elimination of the dividend tax credit for domestic firms may have no impact on investment at all. While the model used to derive this result is a very simple one, it does emphasize the important role played by marginal investors. Devereux and Freeman (1995) examine other assumptions regarding the characteristics of marginal investors in a small open economy, and show that the Boadway and Bruce results are a special case of a more general model. In particular, in a “not so small” open economy, dividend taxes on domestic investors can affect investment.

Whether foreign investors or tax-sheltered institutions form the marginal clientele, if the effective tax rate on dividends for this clientele does not differ from the effective tax rate on capital gains, the opportunity cost of finance that enters the user cost of capital expression is simply,

$$r_f = bi(1 - u) + (1 - b)\rho \quad (12)$$

and it is clear that dividend taxes have no impact on the user cost of capital and therefore no impact on investment.

Finally, from equation (8) above, it is obvious that if $c=\theta$ the price of equity is not determined by the tax rate on dividends, and changes in this rate will have no impact on stock prices under the

²⁷See Miller and Scholes (1978) with respect to the United States, and Amoako-Adu, Rashid, and Stebbins (1992) with respect to Canada.

tax irrelevance view. Moreover, dividend-payout ratios will be chosen independently of the tax rate on dividends.

3. Assessing the Three Views: The Evidence

As discussed in the previous section, the three views predict very different responses to dividend taxation. These are summarized in Table 1: both the new and the traditional views predict that dividend taxes depress equity values, while the tax irrelevance view suggests that they do not; moreover, the traditional view suggests that dividend taxes discourage investment, while the new and the tax irrelevance views suggest that there will be no impact on investment. Finally, the traditional view predicts that firms will lower dividend payouts in response to increases in the dividend tax rate, while the new and tax irrelevance views predict no impact at all.

Each of the three views can be criticized along different dimensions. Indeed, an examination of the evidence suggests that all three views seem to offer an incomplete description of the economic effects of dividend taxation. The challenge at this point seems to be to determine which view is the least flawed.

3.1 Indirect Evidence

There is some “indirect” evidence that calls into question the applicability of all three views. For example, perhaps the greatest weakness of the new view is its *assumption* that firms do not have access to tax-preferred methods for distributing dividends, such as share repurchases. This assumption is no doubt motivated by the fact that under United States tax law, the Internal Revenue Service (IRS) can reclassify share repurchases as dividends, and tax them accordingly. Even more stringent share repurchase provisions exist in the United Kingdom. This suggests that the assumption that share repurchases are not possible may be quite reasonable in jurisdictions such as the United States and the United Kingdom, but is less reasonable for other jurisdictions, such as Canada, where such restrictions do not exist, at least to the same extent. Yet there are reasons to question the applicability of the assumption even in jurisdictions that ostensibly rule out share repurchases. Even if companies are prohibited from repurchasing their own shares (or, rather, such repurchases as treated as equivalent to divided distributions for tax purposes), they can distribute value to their shareholders by using cash to engage in corporate buy-outs or simply purchasing shares in other corporations, which have tax implications similar to share repurchases. Moreover, despite the scope for an IRS reclassification, United States firms have repurchased their own shares in large quantities in any event – Poterba (1987) reports that in 1985, firms in the COMPUSTAT database paid \$85.8 billion in dividends, but spent \$43.0 billion on share repurchases and \$74.5 billion on cash acquisitions of other firms. Similarly, Bagwell and Shoven (1989) show that share repurchases have become increasingly important in the United States. For example, in 1977 dividends accounted for about 80 percent of total cash distributions in the United States, but by 1986 accounted for only 40 percent. This suggests that firms have been able to find ways around share repurchase restrictions in the United States, which has prompted

some to argue that the new view does not constitute a very useful theory because it effectively assumes these alternatives away.²⁸

Another problem with the new view is that by treating dividends as a residual over and above the firm's investment needs, it presumes that firms can generate sufficient funds internally to finance their investments. This is clearly not the case for many firms. Young and start-up firms may not be in a position to generate enough retained earnings to finance their investments. For these firms, new share issues are the only source of marginal equity finance and, as explained above, when this is the case dividend taxes will dampen investment. On the other hand, the assumption that retained earnings are the marginal source of finance may be more defensible for more established firms. Thus, even absent an intrinsic value for dividends, perhaps a more appropriate way to view the new view is that it applies to only some firms some of the time.

Finally, the residual nature of dividends under the new view suggests that dividend payments should be more volatile than investment expenditures. Poterba (1987) cites evidence that exactly the opposite has tended to be true in the United States.

The traditional view is not without its critics. Perhaps its major weakness is that it assumes that dividends have some intrinsic value for shareholders, but provides only weak motivation for this assumption. As discussed above, signalling and agency arguments are often invoked to justify this assumption. While attractive on the surface, upon further consideration these arguments lose some of their lustre. Some have argued, for example, that paying dividends is a very expensive way of signalling or limiting managerial discretion, and that cheaper ways of solving these problems exist.²⁹

Another problem with the traditional view is its prediction that marginal investments are financed by a combination of retained earnings and new share issues. Yet new share issues account for a relatively small proportion of total corporate equity funds raised. This may suggest that the traditional view does not provide an accurate description of the impact of dividend taxes on investment. As pointed out by Zodrow (1991), however, just because new share issues do not constitute a large share of aggregate equity finance does not mean that it is not an important source of marginal funds. Moreover, new share issues can be interpreted more broadly to include *reductions* in share repurchases, *reductions* in buy-outs, and *reductions* in the purchase of the equity of other firms.

A key difference between the tax irrelevance view of dividend taxation and the other two views, is that the former suggests that the effective tax rate on dividends is equal to the effective tax rate on capital gains for marginal investors, both of which may in turn be very close to zero. In the following section, some empirical studies that address this issue are discussed.

²⁸See also Shoven (1990).

²⁹See Black (1976), Edwards (1984), or Fazzari, Hubbard and Peterson (1987).

3.2 Dividend Taxation and Stock Prices

To assess the applicability of the tax irrelevance view, we must determine the tax characteristics of the marginal investor. Of course this cannot be done directly. The most common approach is to infer the effective tax rate on marginal investors by examining the impact of dividend taxes on security prices. Recall that under the tax irrelevance view, dividend taxes should have no impact on stock prices.

The literature has followed three basic approaches. The first is to examine the relationship between (risk adjusted) before-tax rates of return and dividend yields. If the effective tax rate on dividends exceeds the effective tax rate on capital gains for the marginal investor, then, all else equal, the before-tax rate of return should be positively correlated with the dividend yield – before-tax rates of return must be higher to compensate for the higher tax rate on dividends relative to capital gains.

The empirical evidence based on this approach has been mixed. For example, using United States data, Black and Scholes (1974), Gordon and Bradford (1980), Miller and Scholes (1982), and Chen, Grundy and Stambaugh (1990) find support for the notion that the dividend/capital-gains tax differential does *not* affect before-tax returns, while Litzenberger and Ramaswamy (1979, 1980, 1982) find evidence to the contrary. Morgan (1980), in a study of Canadian stock prices, finds that the introduction of capital-gains taxation in 1971 altered prices in a way that suggests that tax differentials are important.

The second approach is to examine the ex-dividend behaviour of stock prices. Without personal taxes on equity, arbitrage arguments imply that the value of a stock should fall by the full amount of the dividend on the ex-dividend day. If the effective tax rate on dividends exceeds that on capital gains, similar arguments suggest that the reduction in the price should be less than the amount of the dividend.³⁰ Elton and Gruber (1970) find evidence that the dividend/capital-gains tax differential was important for the marginal investor in the United States – stock prices did indeed fall by less than the amount of the dividend. This implies that the dividend/capital-gains tax differential was positive for the marginal investor. More recently, however, Heath and Rimbey (1993) find no evidence that ex-dividend day behaviour in the United States is related to differences in the tax treatment of dividends and capital gains. Poterba and Summers (1985) analyse the impact of British tax reforms, and find that changes in dividend taxation had a significant impact on ex-dividend price movements while changes in capital-gains taxes did not, suggesting that while the effective capital-gains tax rate is close to zero, the effective tax rate on dividends is not.

Two Canadian studies that employ the ex-dividend day approach obtain contradictory results. Lakonishok and Vermaelen (1983) investigate whether the introduction of capital-gains taxes in 1971 resulted in a change in the ex-dividend behaviour of stock prices and volumes. They find no evidence of such a change. Booth and Johnston (1984), on the other hand, find that ex-dividend behaviour is indeed sensitive to the tax differential. In particular, their analysis suggests that the

³⁰See Scholes and Wolfson (1992), pages 359-68 for a discussion of this approach and its shortcomings.

“response of the ex-dividend day price ratio to tax changes is consistent with a marginal investor who is an individual with a very low effective tax rate on capital gains.”³¹

A possible criticism of the ex-dividend day studies that claim to find the presence of a tax differential is that they imply the existence of arbitrage opportunities for “short-term traders,” such as institutional investors, who are taxed at the same rate on dividends and capital gains. These traders may enter the market around ex-dividend days in response to these arbitrage opportunities, effectively becoming the marginal, or price-setting, investors around those days by virtue of their lower transaction costs. In the presence of these traders, it may be difficult to infer the effective tax rate on dividends by observing price drops, which could just represent transaction costs.³² Moreover, if such traders are the price setters around ex-dividend days, the absence of a tax effect may not mean that dividend taxes are irrelevant to dividend policy and investment decisions, as a different group of investors, with different tax characteristics, may form the company's usual marginal investor clientele.

The third approach to examining the relationship between taxes and equity values is to employ event study analysis. Changes in the tax law provide natural experiments for investigating the impact of taxes on stock market prices. If taxes are relevant to the marginal investor, changes in the differential tax treatment of dividends and capital gains should be reflected in security prices as soon as the tax changes are announced (or anticipated). Poterba and Summers (1985) use this approach to analyse various tax changes in the United Kingdom. They find that the impact of announcements of dividend tax reductions on stock prices is positively (although not statistically significantly) related to dividend yields, as suggested by the tax relevance hypothesis.

In McKenzie and Thompson (1995b) we analyse the impact of the Canadian dividend tax increase in 1986. The budget increased the effective personal tax rate on dividends for a high-bracket investor (θ from equation (1)) from approximately 25.5 percent to 34.67 percent.³³ Using a data set consisting of high-yield preferred and lower-yield common shares issued by the same companies, in order to control for company specific effects, we find strong evidence that the increased tax rate on dividends depressed prices for the higher-yield preferred shares significantly more than their lower-yield common share counterparts. In particular, our estimates suggest that the stock price changes that followed this 9 percentage point increase in the effective tax rate on dividends lowered the after-tax value of dividends by about 13 percent, which is consistent with a marginal clientele consisting of high-bracket domestic investors.

Two other Canadian studies are also worth noting. Amoako-Adu (1983) investigates changes in the differential taxation of dividends and capital gains accompanying tax changes in 1971 and 1977, and finds significant pricing effects correlated with dividend yields. Amoako-Adu, Rashid and Stebbins (1992) undertake a similar analysis of changes to the taxation of capital gains in 1985 and 1987 and find similar effects.

³¹Booth and Johnston (1984), page 475.

³²Many studies, such as Booth and Johnston (1984), try to account for this by using estimates of “reasonable” transaction costs.

³³This ignores surtaxes and assumes a 50% provincial tax rate.

Although the evidence is somewhat mixed, in our judgment the advantage goes to the studies that suggest that dividend taxes do affect equity prices. This seems to be particularly true for the studies based upon Canadian data, since of the six studies reviewed here, only Lakonishok and Vermaelan (1983) fail to reject the tax irrelevance view. Although some might consider the jury still out on this issue, our position is that there is relatively strong evidence in favour of the existence of a tax differential between dividends and capital gains, which suggests that the tax irrelevance view is not an adequate description of the impact of dividend taxation.

While an examination of dividend taxes and equity values allows us to (tentatively) rule out the tax irrelevance view, it does not allow us to distinguish between the new and the traditional views of dividend taxation, as both predict that equity prices will be affected by dividend taxes. Two approaches have been taken to determine which of these views is supported evidence. The first is to look at the impact of taxes on dividend-payout rates, and the second examines the impact of dividend taxation on investment directly.

3.4 Dividend Taxes, Dividend Payouts and Investment

We are aware of only one study that looks specifically at the impact of dividends on investment. Poterba and Summers (1985) examine the effects of dividend tax changes in the United Kingdom on the level of investment, over the period 1950-81. Their results indicate that investment equations based on the traditional view perform better than those based on the new view. They conclude that “most” investment decisions in the United Kingdom are “better” explained by the traditional view. Sinn (1985, 1991) has questioned some of Poterba and Summers' findings. His main point seems to be that their results may apply to only a subset of “new” firms in their sample, and may not apply more broadly to “mature” firms.

A few other studies have looked at the impact of taxes on dividend policy, as measured by the dividend-payout ratio. The new view predicts that dividend payouts will be unaffected by changes in the taxation of dividends, while the traditional view predicts that increases (decreases) in dividend taxes will decrease (increase) dividend-payout rates. In their study of dividend taxes in the United Kingdom, Poterba and Summers (1985) also examined the impacts of changes in the dividend tax rate on payout ratios. They found a very strong negative relationship, which is consistent with the traditional view, and contrary to the new view. Poterba (1987) extends the analysis to the United States and also finds support for the traditional view. Finally, Nadeau (1988), also using United States data, finds dividend payouts to be very sensitive to taxes.³⁴

The basic approach followed by Poterba and Summers (1985) and Poterba (1987) was to regress the percentage change in dividends on the percentage change in a “tax preference parameter,” which they define as $\Theta = (1-\theta)/(1-c)$.³⁵ In his United States study, Poterba (1987) found that the long run effect of a 1-percent increase in Θ , associated with a reduction in the tax rate on dividends relative to capital gains, was a 2 to 3 percent increase in the dividend-payout rate.

³⁴Nadeau's model is not designed to test the validity of the two views, as he essentially imposes the traditional view on his model. Nonetheless, his results are suggestive.

³⁵This is actually somewhat different than their tax preference parameter, but the basic idea is the same.

Nadeau (1988), following a different approach, found a much higher impact – about 10 times greater than Poterba.

4. Some Conclusions and Illustrative Calculations

Based upon a perusal of the literature on dividend taxation and its effects on investment, firm financial policy and equity values, we find ourselves in general agreement with Gerardi, Graetz and Rosen (1990, page 312), who conclude that “the current state of empirical knowledge gives the edge to the traditional . . . view of dividend taxation.” We would stress, however, that this conclusion is very much a tentative one, and that additional research is required to increase our comfort level.

If one accepts the traditional view of dividend taxation, what does it imply from a policy perspective for Canada? First and foremost, of course, it suggests that changes to the integration system that alter the effective tax rate on dividends will have repercussions for firm financial policy, investment and stock prices. For example, if Canada were to increase the effective tax rate on dividends, accepting the predictions of the traditional view, we would anticipate that equity prices and dividend payouts would fall, the user cost of capital would increase, and therefore investment would decline.

An important question concerns the magnitude of these changes. As indicated above, without more extensive empirical work it is very difficult to arrive at strong conclusions in this regard. However, we can make some educated guesses as to the potential effects by undertaking some simple calculations. It must be stressed that these calculations are illustrative only, as there is still a great deal of uncertainty regarding the impact of dividend taxes.

Nonetheless, consider a hypothetical policy change that eliminated integration altogether, moving Canada to a classical system similar to that used in the United States. If we assume, as is suggested by the empirical results of McKenzie and Thompson (1995b), that the marginal investor in Canadian equity is a high-bracket domestic investor, then, assuming an Alberta resident investor for illustrative purposes, eliminating integration would increase the effective *personal* tax rate on dividends by about 15 percentage points, from 31.4 percent to 46.07 percent. This suggests about a 21 percent decline in the after tax value of dividends. The impact on the *total* effective tax rate would depend upon the tax rate faced by the corporation issuing the dividends; Table 2 provides the relevant calculations for fully taxpaying CCPCs and non-CCPCs.

Consider first the implications of a tax change of this magnitude for firm dividend policy. Recall that we motivated the traditional view by conjecturing that dividends played a signalling role, or served to reduce agency problems within the firm. This suggests that the required (after-tax) return to equity is a declining function of the dividend-payout ratio – i.e. $\rho(\alpha)$, with $\rho'(\alpha) < 0$ – and that a decline in that ratio due to a rise in the tax rate on dividends would therefore increase the opportunity cost of equity. As suggested above, there is some question regarding the sensitivity of payout rates to changes in dividend taxes. Poterba's (1987) study found that for the United States, a 1-percent decline in the tax preference parameter $\Theta = (1-\theta)/(1-c)$ led to about a 2 percent decline in dividend-payout rates. Using the above calculations for θ both before and

after the hypothetical tax change, and presuming an effective tax rate on capital gains of $c=.10$, as suggested by McKenzie and Thompson (1995a), the tax preference parameter is about .76 under the current system, and would drop by 21 percent to about .60 if integration was eliminated. If we assume that Poterba's estimates are applicable to Canada, and that his point estimate also applies to large discrete changes such as that considered here – both somewhat heroic assumptions – then we would conjecture about a 42 percent decline in dividend-payouts due to this policy change.

We now consider the implications of this hypothetical tax change on the user cost of capital. A key component of the user cost of capital is the opportunity cost of finance, r_f , the characterization of which depends upon which view of dividend taxation one adopts; only under the traditional view is r_f affected by changes in the dividend tax rate. The approach we take is to determine r_f both before and after the hypothetical dividend tax increase using equation (11), and then determine the impact on the cost of capital using a formula similar to equation (3).³⁶ While this seems simple enough, there are some difficulties. When determining the impact of a discrete tax change of the magnitude considered here, it is important to take account of the resulting change to the dividend-payout ratio.³⁷ In terms of equation (11), while θ increases, suggesting an increase in r_f , the dividend-payout ratio α falls, dampening this increase somewhat. The fall in α then causes $p(\alpha)$ to rise, which exacerbates the impact of the increase in θ . Unfortunately, it is impossible to determine the net magnitude of the change without a much more complete model of financial markets, and in particular without knowledge of the functional form of $p(\alpha)$. The approach we take here is to ignore changes in both the dividend-payout ratio and the required after-tax return to equity due to the tax change, and determine r_f using existing data on ρ and α . Recalling that changes in these variables have opposing effects on the opportunity cost of finance, our hope is that we are not missing too much by holding them constant.

Our user costs of capital calculations are presented in Tables 3 and 4. We calculate the weighted average risk-free user cost of capital for seven selected sectors, aggregated across four asset classes – buildings, equipment, inventories, and land. In Table 3 user costs are presented for both the new and the traditional views of dividend taxation, under the current gross-up and credit system, whereby the effective personal tax rate on dividends is 31.4 percent. Under the traditional view, r_f reflects a weighted average of the effective tax rate on dividends and capital gains, as in equation (11), while under the new view, r_f reflects only the effective capital-gains tax rate, as in equation (6).

We see that for industries with low dividend-payout ratios the difference in the user cost of capital under the two views is not very great, with the user cost of capital under the traditional view only slightly higher. This, of course, is not surprising as the weighted average opportunity cost of capital is similar under the two views if the proportion of investment financed by retained earnings is high (and therefore the dividend-payout rate is low). However, for sectors with high

³⁶We augment the user cost of capital expression by incorporating many features of the corporate tax system in Canada that were not considered in the “intuitive” derivation of equation (3).

³⁷While the envelope theorem allows us to ignore these effects for small (marginal) changes in θ , for large (discrete) changes this is no longer the case.

dividend-payout rates, such as communications, utilities and services, the differences are more pronounced, with the user cost of capital under the traditional view substantially higher – as much as 1.5 percentage points for non-CCPC utilities, and 1.1 percentage points for CCPC utilities.

In Table 4 we present user cost calculations under the traditional view for a hypothetical tax system that eliminated integration all together, thereby increasing the effective personal tax rate on dividends from 31.4 percent to 46.01 percent; for convenience we also reproduce the figures for the current system. Of course, eliminating integration would have no impact on the user cost of capital under the new view. The increases in the user cost of capital are quite modest for the low-payout industries, but substantially higher for the high-payout industries. For example, for non-CCPC utilities, eliminating integration would increase the user cost of capital by as much as 1.75 percentage points, while for non-CCPC wholesale trade the user cost of capital increases by only .15 percentage points.

We have argued that if the traditional view of dividend taxation is correct, and we feel that there is some empirical support for this position, then the elimination of integration in the Canadian tax system would lower dividend payouts and increase the user cost of capital. If we accept the changes in the user cost of capital shown in Table 4 as being roughly indicative of what would happen if integration were eliminated, then an important question that we have not addressed is the magnitude of the resulting decline in investment. This too is a difficult issue. Like the other literature cited here, empirical studies of the relationship between the user cost of capital and investment have been somewhat inconclusive. Early studies tended to show that the relationship was very weak, if not non-existent.³⁸ More recent work has suggested that the user cost of capital is a very important determinant of investment. For example, work by Auerbach and Hassett (1991), Cummins and Hassett (1993), and Cummins, Hassett and Hubbard (1995) uncovers a very strong price effect. The latter work undertakes a multi-country study, including Canada, of the impact of tax reforms on investment using a unique firm level data set. They find that the investment response to the 1987 tax reform in Canada was very similar to the response to the 1986 tax reform in the United States, and in both cases consistent with the idea that tax-induced changes to the cost of capital significantly affect investment. Cummins and Hassett (1993) determine on the basis of United States data that a one percentage point increase in the user cost of capital could lower the investment *rate* (investment as a percentage of the capital stock) by as much one percentage point. If we assume that the reaction in Canada would be similar, then the increases in the user cost of capital due to the elimination of integration reported in Table 4 would translate into point-for-point decreases in the investment rates. For example, the investment rate for non-CCPC utilities may decline by as much as 1.75 percentage points in response to a 1.75 percentage point increase in the user cost of capital; similarly, the 1.5 percentage point increase in the user cost of capital for services would decrease the investment rate in that sector by 1.5 percentage point. Recall that these are investment *rates*, thus small changes can reflect fairly large movements in investment *levels*. Also, it is important to stress that given the lack of empirical studies, particularly in a Canadian context, these should be considered nothing more than educated guesses; actual investment responses may be substantially different. Further to this point, the above calculations have ignored potential supply side effects

³⁸See Chirinko (1993) for a survey of the empirical investment literature.

on credit markets due to a reduction in domestic saving in response to the increase in the tax rate on dividends. To the extent that domestic interest rates also rise due to the resulting constriction in savings, investment may be dampened even more than suggested by the above analysis.

TABLE 1
**Implications of an Increase in the
Dividend Tax Rate Under the Three Views**

	Investment	Dividend Payout	Equity Prices
Traditional View	decrease	decrease	decrease
New View	no change	no change	decrease
Tax Irrel. View	no change	no change	no change

TABLE 2
**Effective Tax Rates on Dividends,
Alberta Corporations and Investors**

	Current System	No Integration
	(percent)	
Personal	31.4	46.07
Total		
Manuf. non-CCPC	56.52	65.82
Non-manuf. non-CCPC	62.01	70.13
CCPC	44.52	56.38

TABLE 3

User Cost of Capital, Traditional vs. New View, Current System

	Payout Ratios	Traditional Non-CCPCs	New Non-CCPCs	Traditional CCPCs	New CCPCs
			(percent)		
Forest Products	13.6	6.61	6.44	6.12	5.98
Manufacturing	15.1	6.54	6.36	5.83	5.67
Communications	58.6	8.41	7.50	7.35	6.65
Utilities	88.3	9.19	7.70	7.32	6.19
Wholesale Trade	13.2	8.03	7.85	6.58	6.44
Retail Trade	38.2	7.76	7.58	6.61	6.48
Services	80.9	9.05	7.75	7.21	6.16

TABLE 4

**User cost of capital, Alberta Investors and Corporations
Traditional View, Current System and
Hypothetical Elimination of Integration**

	Current Non-CCPCs	No Integration Non-CCPCs	Current CCPCs	No Integration CCPCs
			(percent)	
Forest Products	6.61	6.75	6.12	6.23
Manufacturing	6.54	6.69	5.83	5.96
Communications	8.41	9.33	7.35	8.04
Utilities	9.19	10.94	7.32	8.63
Wholesale Trade	8.03	8.18	6.58	6.71
Retail Trade	7.76	7.91	6.61	6.73
Services	9.05	10.52	7.21	8.32

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Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

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Toronto, Ontario

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The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

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Capital Tax Issues

Peter E. McQuillan
E. Cal Cochrane
KPMG, Toronto

December 1996

WORKING PAPER 96-8

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

Capital Tax Issues

Peter E. McQuillan
E. Cal Cochrane
KPMG, Toronto

December 1996

WORKING PAPER 96-8

Prepared for the
Technical Committee on Business Taxation

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Abstract

This paper examines the history of federal capital taxes beginning with the "temporary" capital tax on financial institutions introduced in May 1985 (Part VI tax). A second federal capital tax was introduced in April 1989 and has become known as the Large Corporations Tax.

The application of federal capital taxes is examined using a Chartered Bank for illustration of the Part VI tax and a manufacturing company for illustration of the Large Corporations Tax.

The rules used for computation of federal capital taxes are compared to the rules for provincial capital taxes. The paper also includes a comprehensive summary of the rules for computing capital tax under the various provincial regimes.

The potential for economic distortions that may result from the imposition of federal capital taxes is considered as well as the effect of capital taxes on investment and business decisions. Common techniques that are used to minimize federal and provincial capital taxes are also discussed.

The paper concludes with the following recommendations:

- effort should be made to harmonize federal and provincial capital taxes;
- federal capital tax rates should not be increased due to the potential distortions and inequities noted in the paper;
- consideration should be given to an alternative minimum corporate tax at the federal level in order to eliminate or reduce federal capital taxes.

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This paper has been prepared to assist the Technical Committee in its examination of the Canadian tax system.

The paper examines the history and application of federal capital taxes and compares the federal rules to the capital tax regimes imposed by various provinces. It also considers economic issues and the role capital taxes may play in business decisions and investment planning, and the effect of changing the mix of capital taxes and income taxes. The paper also sets out planning ideas that have been used to reduce the burden of capital taxes. Finally, the paper offers suggestions on ways that federal capital taxes might be improved.

Basic Model for Capital Tax

Appendix A provides a detailed comparison of the federal and provincial rules for computing capital tax. Capital taxes have been part of the provincial corporate tax system for nearly 50 years.¹ Although unfortunately there are many differences in the rules of the various jurisdictions, a basic model for capital tax may be stated as follows:

CAPITAL – including shareholders' equity and specific items of debt and reserves

LESS:

Investment allowance – including investments in other corporations and specific other investments

LESS:

Stated deduction or threshold

EQUALS:

Taxable capital

Taxable capital x relevant capital tax rate = capital tax

History of Federal Capital Taxes

The federal taxation of corporate capital began with the Income Tax Act imposing a capital tax on the capital of financial institutions under Part VI, and other "large corporations," including financial institutions, under Part I.3. The history of these two federal capital taxes is discussed below.

¹ Quebec first imposed capital taxes in 1947.

Capital Tax on Financial Institutions

The federal government first introduced capital taxes on corporations in its Budget of May 23, 1985. Then Finance Minister Michael Wilson proposed a two-year temporary tax on the capital of large banks and trust companies, effective in 1986. Mr. Wilson's Budget speech stated: "The purpose of this measure is to ensure that they (large banks and trust companies) bear an appropriate part of the tax load at a time when deficit reduction is a high priority." The deficit was projected to balloon to \$36 billion for fiscal 1984-85, a jump of 40 percent from its level two years earlier.

Although Mr. Wilson alluded to the possibility that these institutions were not bearing a fair share of the tax load, it seems that a deficit reduction motive was the driving force behind the proposed legislation. Deficit reduction, together with a targeted group of taxpayers that did not register high in public sympathy were likely the main factors contributing to the origins of this tax.

In 1985, when the first federal capital tax was introduced, capital taxes had been an integral part of the provincial corporate tax system for nearly 40 years. Capital taxes had the attraction of being relatively simple to understand and administer. They could also be targeted to entities that were considered "large" in terms of their capital base. It was not lost on the politicians of the day that "large" would be equated with "able to pay" in the minds of the public.²

The imposition of this federal tax commenced January 1, 1986 at a rate of 1 percent and applied to the taxable capital employed in Canada in excess of \$300 million. The Part VI tax applied to banks and regulated trust and loan corporations. Initially, the capital tax was deductible in computing income under former paragraph 20(1)(nn). Since its introduction, this Part VI capital tax has been amended several times, most notably as follows:

1. For 1988 taxation years, the temporary tax became permanent. The rates were then 1 percent on capital between \$200 million and \$300 million, and 1.25 percent on capital in excess of \$300 million. At the same time, the tax became creditable against Part I tax otherwise payable rather than deductible in computing income.
2. For taxation years ending after February 20, 1990, the Part VI tax was extended to life insurance corporations carrying on business in Canada and to holding corporations all or substantially all of the assets of which are shares or debt of related financial institutions.
3. For 1992 and subsequent taxation years, the credit system was effectively reversed by providing a credit under Part VI in respect of a corporation's tax payable under Part I (except for surtaxes that have been offset by the Large Corporations Tax under Part I.3).
4. An additional temporary surtax was imposed on life insurance corporations for taxation years ending after February 25, 1992 and commencing before 1996. This additional tax applies at rates that vary from 0.5 percent to 1.0 percent for tranches of taxable capital employed in

² A cynic might compare the levy of capital taxes on chartered banks to the levy of service charges by those same institutions, which began in earnest in the mid-1980s. Service charges have a similar appeal in terms of being simple, easy to administer and potentially major sources of funds.

Canada between \$10 million and \$300 million, and at 0.25 percent for taxable capital over \$300 million.

5. The February 27, 1995 Budget proposed an additional temporary 0.15 percent tax on capital of financial institutions other than life insurance corporations for capital employed in Canada in excess of an "enhanced deduction" of \$400 million (Bill C-36, first reading May 17, 1996). This is proposed for taxation years that end after February 27, 1995.
6. The March 6, 1996 Budget proposes to extend the additional 0.15 percent tax discussed above to October 31, 1997. It also proposes to extend the temporary surtax on life insurance corporations noted above to the end of 1998.

In reviewing the above amendments and proposed amendments to the capital tax on financial institutions, it should be noted that the capital tax became a *minimum* tax for financial institutions in 1988 with the introduction of a credit against Part I tax, rather than an *additional* tax as first introduced in 1985. The capital taxes imposed under Part VI and Part I.3, although creditable against Part I tax and surtaxes, function as minimum taxes but not as minimum income taxes.³ A corporation may have significant accounting income but no taxable income and little or no taxable capital, in which case it will pay no federal tax.

For example, a corporation with large tax losses carried forward may have significant income in a current year. It will have accounting income but no taxable income. Also, it may have a deficit in shareholders' equity and no taxable capital. Although the federal capital taxes are not minimum income taxes, they are creditable against Part I tax and surtaxes, which puts them between a minimum income tax and a pure add-on tax.

The frequency of the amendments and proposed amendments to increase the tax base and the tax rate clearly indicate that capital taxes have become an attractive and important source of revenue for the federal government.

Large Corporations Tax

The federal Budget of April 27, 1989 extended the capital tax levy to virtually all corporations for taxation years ending after June 1989. Because the capital deduction was set at \$10 million, this tax of 0.175 percent on taxable capital employed in Canada has become known as the "Large Corporation Tax" (LCT). In his Budget speech, Mr. Wilson again referred to the need to levy taxes and reduce the deficit. He also stated that the LCT would "ensure that all large corporations pay at least a minimum amount of tax each year." Again, the use of the term "large corporations" carried the connotation that these corporations are able to pay this new tax regardless of their financial position. The LCT was initially creditable against the 3 percent corporate surtax and, in 1992, the credit was effectively reversed with the LCT now reduced by the surtax.

³ This observation was made by Robert Couzin in a Canadian Tax Foundation 1991 Conference Report paper, "Tax Options for Competitiveness," page 7:17.

The LCT was increased to 0.2 percent effective January 1, 1991. A few limited exceptions to the LCT are provided in subsection 181(3) including deposit insurance corporations and certain co-operatives.

The Budget of February 27, 1995 (Bill C-36) proposed that the LCT be increased to 0.225 percent for taxation years ending after the Budget date and prorated for taxation years that straddle February 27, 1995. As with the Part VI tax, the federal government has tended to ratchet up the LCT, with the latest proposal resulting in a LCT that is 29 percent higher six years after its inception.

Application of Federal Capital Taxes

The capital taxes imposed under Parts VI and I.3 are applied in a similar manner, with specific rules to deal with the computation of taxable capital and investment allowances for life insurance corporations, non-life insurance corporations, other financial institutions (other than insurance corporations) and other (non-financial) corporations. Except where there are noteworthy issues that relate to insurance corporations, this paper will deal primarily with the rules as they relate to financial institutions other than insurance corporations (using a chartered bank for examples) and non-financial institutions (using a manufacturing company for examples).⁴

Part VI Tax

The computation of capital under Part VI as it would apply, for example, to a bank, consists of the sum of the following at the end of its taxation year:

1. amount of its capital stock;
2. amount of its retained earnings, contributed surplus and any other surplus;
3. amount of its reserves not deducted in computing its income, with reserves defined to mean its reserves, provisions and allowances (except for depreciation and depletion) and including provisions for deferred taxes; and
4. amount of its long-term debt – basically subordinated indebtedness evidenced by obligations issued for a term not less than five years.

Less:

1. amount of its deferred tax debits; and
2. amount of its deficit deducted in computing shareholders' equity.

⁴ The insurance industry has had extensive consultations with the federal government on the application of Part VI tax. The March 6, 1996 federal budget announced a continuation of the additional capital tax on life insurance companies until the end of 1998 as part of a number of changes to the taxation of life insurance companies to take effect in the 1996 taxation year.

The calculation of taxable capital, investment allowances and other amounts under Part VI are to be made without use of the equity or consolidated methods of accounting. This will limit the calculation for retained earnings of a bank, for example, to unconsolidated earnings from its banking business. It is also required that the amounts reflected in the balance sheet presented to the Superintendent of Financial Institutions are to be used for calculation of the taxable capital, investment allowance and other amounts under Part VI.

Taxable capital of a financial institution under Part VI is its capital less an investment allowance. The investment allowance is the total of the carrying value of any stock or debt of a related financial institution owned at the end of the year. Since the rules noted above do not allow the use of the equity or consolidated methods of accounting, the carrying value would represent the cost of the investment reduced by any write-downs taken by the taxpayer. The rules in Part VI also allow a financial institution to include in the carrying value calculation any surplus it has contributed to the related financial institution.

It should be noted that the inclusion of long-term debt issued for a term not less than five years could influence financial institutions to finance their business with shorter-term obligations. For example, there may be a disincentive for longer-term deposit liabilities. Most financial institutions match the term of their obligations with the term of their investments (e.g. consumer or commercial loans). This potential bias will likely be minimized with the term of obligations driven by market forces rather than tax minimization.

Large Corporations Tax

Under Part I.3, the capital of a non-financial institution for LCT purposes consists of the sum of the following at the end of the taxation year:

1. amount of its capital stock;
2. amount of its retained earnings, contributed surplus and any other surplus;
3. amount of its reserves except to the extent they were deducted in computing income (except for depreciation and depletion) and including provisions for deferred tax;
4. amount of all loans and advances to the corporation;
5. amount of all debt represented by bonds, debentures, notes, mortgages, bankers' acceptances or similar obligations;
6. amount of dividends declared but not paid;
7. amount of all other debt (except in respect of a lease) that has been outstanding for more than 365 days at year end; and
8. a *pro rata* share of a partnership's capital items if the taxpayer is a member of a partnership at year end.

Less:

1. amount of its deferred tax debits;
2. amount of its deficit deducted in computing shareholders' equity; and
3. amount of patronage payments deducted from income in the year or the following 12 months to the extent they can reasonably be regarded as included in the capital items above.

The first three items above for inclusion in capital under Part I.3 for non-financial institutions are identical to the Part VI rules for financial institutions. However, items 4, 5 and 6, which include all bonds, debentures, notes, mortgages, bankers' acceptances and similar obligations, all loans and advances and other debts outstanding for more than 365 days, go far beyond the Part VI inclusion of subordinated debt and debt issued for at least a five-year period. In addition, item 6, dealing with unpaid dividends, is not mentioned in the Part VI rules, nor is item 8, dealing with partnerships. This latter omission from the Part VI rules may be based on the provision under the statutes governing financial institutions that prohibits them from carrying on business through a partnership.⁵ There seems, however, to be a contention that all loans and any debt outstanding for one year and one day are capital to a manufacturer, for example, but are not capital to a bank. The inclusion of five-year debt as capital for banks but one-year-plus-one-day debt for manufacturers may be due to the desire for some element of simplicity in dealing with financial institutions such as banks.

The rule regarding non-acceptance of the equity or consolidated method of accounting in determining capital or investment allowances under Part VI also applies under Part I.3. For a taxpayer such as a manufacturing company, the amounts reflected in a balance sheet presented to the shareholders of the corporation are to be used. Where a balance sheet was not prepared in accordance with GAAP or where no balance sheet was prepared, the amounts that would have been reflected in a GAAP balance sheet are to be used. In a roundabout way this rule requires non-financial institutions to use amounts calculated under GAAP but modified, for example, to exclude equity and consolidated accounting.

The investment allowance rules under Part I.3 for non-financial institutions for LCT purposes are likewise broader than those under Part VI. The allowance is the carrying value at the end of the year of an asset that is:

1. a share of another corporation;
2. a loan or advance to another corporation (except for a financial institution);
3. a bond, debenture, note, mortgage or similar obligation of another corporation (except for a financial institution);
4. a long-term debt of a financial institution;
5. a loan or advance to or a bond, debenture, note, mortgage or similar obligation of a partnership, all members of which were other non-exempt corporations;

⁵ Bank Act, Section 421.

6. an interest in a partnership; or
7. a dividend payable to the corporation at the end of the year on a share of another corporation.

Many of these items in the investment allowance parallel the items in the inclusion of capital. For example, a loan from another corporation is included in capital and a loan to another corporation is included in the investment allowance.

Such parallel treatment eliminates the "double counting" where large corporations invest in each other. The investment allowance is a dollar-for-dollar deduction from capital as opposed to the prorating of investments over total assets as required in the rules for many of the provinces that tax capital. Shares in all corporations and loans to all corporations qualify, however, in the investment allowance. Therefore, an investment in a foreign corporation,⁶ which is clearly not subject to LCT if it does not carry on business in Canada, would qualify for the investment allowance.

Unlike many of the provincial capital tax systems, the LCT rules do not allow items such as term deposits and bankers' acceptances as investments for the investment allowance. The inclusion of all shares including shares of foreign corporations, would seem to present the perverse opportunity for large corporations to hold non-qualifying assets such as cash, bank term deposits and bankers' acceptances in a foreign corporation and have the investment in the shares of the foreign corporation qualify for investment allowance purposes. This would be a simple way to have these investments qualify if they could not be used otherwise to pay down debt included in capital, or if the taxpayer preferred to retain the non-qualifying investments.

Comparison of Federal Capital Taxes and Provincial Capital Taxes

All of the provinces impose a capital tax on banks and trust and loan corporations. In addition, capital taxes are imposed by the provinces of Ontario, Quebec, Manitoba, Saskatchewan and British Columbia on all corporations with a permanent establishment (or in the case of Quebec an "establishment") in their jurisdictions.⁷

The five provinces that tax capital of all corporations have similar although not identical rules for computing capital and the investment allowance. The provincial rules allocate taxable capital by formula among provinces where a corporation has a permanent establishment in more than one province.

⁶ Revenue Canada's view on the meaning of the term "corporation" can be found in Interpretation Bulletin IT-343R.

⁷ Ontario, Corporations Tax Act, RSO 1990, c. C40; Quebec, Taxation Act, RSQ, c. 1-3, as amended; Manitoba, The Corporation Capital Tax Act, RSM 1988; Saskatchewan, The Corporation Capital Tax Act, SS 1979-80; British Columbia, Corporation Capital Tax Act, SBC 1990 c. 4.

The current rates that apply to taxable capital for these provinces are as follows:

Ontario	0.30 percent
Quebec	0.64 percent
Manitoba	0.30 percent (additional surcharge of 0.20 percent over \$10 million)
Saskatchewan	0.60 percent
British Columbia	0.30 percent

The provincial rules, while similar to the federal LCT rules, do have several noteworthy differences⁸ as follows:

Calculation of Capital

1. Federal LCT and B.C. rules do not allow equity accounting in calculating capital or investment allowances but the other four provinces do allow equity accounting. Equity accounting permits a shareholder corporation to include the earnings of an investee corporation in its income (and therefore its retained earnings) and increase the carrying cost of the investment by the same amount.
2. Federal LCT, B.C. and Quebec rules ignore the difference between the accounting value of depreciable assets and the undepreciated capital cost, but the Ontario, Manitoba and Saskatchewan rules adjust capital for this difference. In so doing, these three provinces replace accounting depreciation with tax depreciation.
3. All jurisdictions except B.C. include in capital reserves deducted from income but not allowed for tax purposes.
4. The federal LCT rules include outstanding cheques as capital but none of the provinces have this provision.

Investment Allowance

One of the major differences in calculating investment allowance is that all of the provinces prorate the eligible investments as follows:

$$\frac{\text{total eligible investments}}{\text{total assets}} \times \text{capital}$$

Where total assets exceed capital (which is often the case), investment allowance is diluted for provincial purposes. For LCT purposes, there is a direct dollar-for-dollar reduction of capital for eligible investments.

⁸ See Appendix A for a comprehensive table comparing the federal and provincial rules for calculating paid-up capital and investment allowance.

In computing investment allowance, the provinces allow several items that are not allowed for federal LCT purposes, as follows:

1. term deposits and bankers' acceptances with banks and guaranteed investment certificates of trust companies – all provinces; and
2. trade accounts receivable outstanding for extended periods – allowed by B.C., Saskatchewan, Manitoba, Ontario.

Economic and Policy Issues

Simplicity

Capital taxes have the appearance of being simple to understand and administer in comparison to income taxes. In reality, capital taxes are becoming increasingly complex. The federal legislation has developed separate rules for industry groups in Part VI and Part I.3. For example, Part VI has different definitions of capital for (1) financial institutions other than a life insurance corporation; (2) life insurance corporations resident in Canada; and (3) life insurance corporations not resident in Canada. Part I.3 has different definitions of capital for (1) non-financial institutions; (2) financial institutions other than insurance corporations; (3) insurance corporations resident in Canada that carried on a life insurance business; (4) insurance corporations resident in Canada that did not carry on a life insurance business; and (5) insurance corporations not resident in Canada that carried on business in Canada.

Obviously, different rules are necessary to accommodate the unique methods used by financial institutions and insurance corporations in accounting for such items as reserves. When, however, the various provincial rules are layered on to the rules for federal capital taxes and the many differences among the regimes are taken into account, capital taxes become more complex and can no longer be viewed as the simple or straightforward tax they might have been many years ago.

A review of Appendix A demonstrates the absolute need for harmonization of definitions for federal and provincial capital tax applications.

Fairness: Loss Companies and Start-ups

Federal capital taxes under Part VI and Part I.3 are creditable against mainstream Part I tax and surtax, whereas provincial capital taxes are not creditable. Provincial capital taxes are therefore an "additional tax" to the corporate income tax. This feature tends to mitigate the burden of federal capital taxes and is further assisted by the permitted seven-year carry-forward and three-year carry-back of unused Part I tax and surtax for offset against federal capital taxes.

The imposition of federal capital taxes may be viewed as unfair in their application to certain corporations. The most obvious illustration is a corporation that has a large operating loss and no income tax payable, yet it may well have a substantial capital tax liability. At a time when a

corporation is under financial pressure and when funding is likely critical, it seems unfair that it may be subject to heavy capital taxes.

If this operating loss situation is a short-term situation, say, for one or two years, the carry-over credits may alleviate the financial burden. However, since non-capital losses are usually carried back to recoup taxes paid in prior years (thus reducing or eliminating unused Part I tax and surtax), this relief will likely be obtained only in future years, if at all. If it is a longer string of loss years, the capital taxes may be a significant additional cost that is never recouped. Compounding this problem is the likelihood that losses are financed by additional debt or shareholder capital injections that are included as capital. Therefore, although the operating loss will initially reduce capital, it is likely offset by an increase of new debt or share capital financing.

Corporations that invest heavily in long-term projects suffer similar adverse results. Examples would include biotech research corporations, software system developers, telecommunication corporations and real-estate project developers. All of these types of corporations have large capital requirements and, because of initial start-up costs, research expenses or depreciation of capital expenditures, may have little or no accounting or taxable income in the first few years of operation.

The magnitude of the inequitable treatment in these examples depends on the amount of taxable capital of these corporations and the applicable tax rate. For example, if the project was fairly large and required \$50 million of capital, the annual federal LCT at 0.225 percent would be \$90,000 (after a \$10-million capital deduction and assuming no investment allowance). This may be stacked on top of provincial capital tax (e.g. 0.3 percent using the Ontario capital tax rate). Although the federal LCT or the combined federal and provincial capital tax burden in this example is not enormous, they would likely be significant to a corporation suffering from operating losses or undertaking a new, large project.

Fairness: Rates of Return

For profitable corporations, there is an underlying presumption that the federal capital taxes will be offset by a corporation's mainstream Part I tax or surtax. A simple analysis dealing with LCT and the credit against surtax illustrates that this will rarely be the case. For example, consider the case of a large manufacturing corporation that is planning to add a new plant and new equipment to produce a new product:

Assumptions:

Investment in plant and equipment: \$20 million

Financed by a combination of new share equity and long-term debt

Result:

Increase in paid-up capital: \$20 million

Resulting LCT at 0.225 percent: \$45,000

Surtax required to completely offset LCT: \$45,000

Taxable income required to generate surtax of \$45,000 (at surtax rate of 1.12 percent): \$4,018,000

Return Required:

Implicit rate of return required: $\$ \frac{4,018,000}{20,000,000}$

$= 20.09$ percent

This rate of return will produce sufficient taxable income and surtax to offset the resulting LCT.

Note that this return is calculated on taxable income and therefore would be after deduction for capital cost allowance on the depreciable property, which would likely be higher than accounting depreciation. Therefore, the required rate of return on an accounting income basis would likely be higher than calculated in the example above.

How does the required rate of return compare to real-world results? The *Financial Post* annual publication on large Canadian corporations includes calculations of return on invested capital.⁹ For the top 10 industrial companies for which information was available in the 1996 *Financial Post* report, only two companies had a return on invested capital in excess of 20 percent. For the top 50 companies, nine had a return on invested capital in excess of 20 percent.

This comparison indicates that a required return in excess of 20 percent is unusually high and would not be achieved or maintained by the majority of large industrial corporations.¹⁰

It may be concluded from this analysis that the offsetting of LCT by the corporate surtax provides a measure of relief, but the current rate of LCT would require an unrealistically high rate of return on new investment to completely offset the LCT resulting from taxable capital raised to fund new investments.

⁹ The *Financial Post* 1996 FP 500 publication with data for 1995 and 1994. The return on invested capital is defined by FP as net income plus income taxes, minority interests and the interest expense on long-term debt taken as a percentage of the average capital invested at the two latest year ends. Capital invested is defined by FP to equal total assets minus current liabilities, which is equivalent to the LCT definition of paid-up capital of shareholders' equity and long-term debt.

¹⁰ The *Financial Post* return on invested capital would be lower if interest on long-term debt was deducted from the return on capital. Offsetting this is the fact that the LCT allows a reduction for the investment allowance and a deduction of \$10 million in computing taxable capital.

A similar analysis of the Part VI tax on financial institutions results in a required rate of return of 5 percent (using a basic Part I tax rate of 28 percent and the top rate of 1.40 percent under Part VI). Although this is a much lower return than required under the LCT rules, most financial institutions would expect a return of less than 5 percent on capital employed (published Return on Assets statistics for large Canadian banks, for example, show pre-tax returns typically less than 2 percent arguably, the exclusion of short-term liabilities such as customer deposits from the capital base for financial institutions significantly improves their ability to earn a 5 percent or better return on capital included in the taxable base).

Investment Decisions: LCT

There is a tendency to conclude that the present capital tax rate under Part I.3 is sufficiently low that capital tax likely does not have a major impact on investment decisions.¹¹

Firstly, we should examine investment decisions made by foreign corporations faced with the choice of making an investment in Canada or another country (generally, the United States). With today's highly competitive environment, the investor usually makes a detailed cost/benefit study of the two jurisdictions and invariably this study will include the cost of capital taxes in Canada.

Although two of the major G-7 countries have taxes that bear some resemblance to a capital tax,¹² the United States does not levy a general capital tax on corporations at the federal level.¹³ It can be concluded, therefore, that Canadian capital taxes are a negative factor in comparing Canada to its nearest neighbour and can become a significant absolute cost at high levels of capital investment.

Secondly, we should examine the effect of capital taxes on decisions by Canadian corporations to invest in various opportunities that may be available. Although an investment that requires new financing may result in an increase in paid-up capital, there will be an offsetting reduction to the extent that the investment gives rise to an expense in the financial statements of the investor.

The following section examines six investment opportunities and the capital tax effect in the first year assuming the investment is funded by an increase in paid-up capital (stock or debt obligation that is included in paid-up capital) and yields no revenue in the first year:

1. Investment in research and development – may be expensed in full in the year, depending on the nature of the project; if expensed in full it would offset the increase in paid-up capital.
2. Investment in advertising and promotion – likely expensed in full in the year incurred and therefore it would offset the increase in paid-up capital.

¹¹ Couzin, p. 7-17.

¹² Germany imposes a tax on net assets and a municipal trade tax on capital of corporations, and Japan levies a tax on fixed assets of corporations.

¹³ Some of the U.S. states impose a capital or franchise tax on corporations that is similar to Canadian capital taxes. Also, the U.S. federal system imposes a minimum income tax on corporations.

3. Investment in new hires and additional payroll (non-manufacturing) – same comment as point 2.
4. Investment in new hires and additional payroll (manufacturing) – a large portion of the payroll would likely be spent on production activity resulting in increased inventory, which is an asset rather than an expense and does not qualify for the investment allowance; therefore, only the expensed portion would give rise to an offset against the increase in paid-up capital.
5. Investment in increased working capital items such as accounts receivable and inventory – similar to point 4 above, this would represent an asset rather than an expense and does not qualify for the investment allowance.
6. Investment in plant and facilities – the depreciation on such property would offset the paid-up capital increase but the investment does not qualify for the investment allowance.

Note that the offsetting expense from these investments would be reduced on an after-tax basis by the tax saving associated with the expense.

It can be seen from the above analysis that, in the first year of the investment, some relief from capital tax would be provided by deductions from income. Manufacturing companies, in particular, that typically increase capital in order to invest in additional plants, equipment and labour force, would benefit less from this offset effect than, for example, research (e.g. biotech) companies, marketing and service companies that invest in new expansion.

Techniques to Minimize Federal Capital Taxes

Several planning ideas have evolved to minimize provincial and federal capital taxes. The following is a summary of the more commonly suggested techniques dealing with LCT and Part VI tax:

1. Use available funds prior to year end to reduce liabilities that would otherwise be included in paid-up capital. For LCT purposes, the repayment of any loan or advance prior to year end would reduce paid-up capital. This idea may not be practical for financial institutions under Part VI since it would require repayment of long-term debt, which would likely have other business implications.
2. Liquidate investments such as term deposits, bankers' acceptances and guaranteed investment certificates prior to year end, and reduce debt obligations. These investments do not qualify for investment allowance for LCT or Part VI purposes.
3. Extend trade payables prior to year end in order to create additional funds to reduce debt obligations. For LCT purposes the trade debt should not exceed 365 days since it would then be included in paid-up capital.
4. Factor accounts receivable and use the available cash to reduce debt obligations.

5. Rather than reducing debt obligations, an alternative use for LCT purposes would be to hold available cash and non-qualifying investments such as term deposits in a foreign corporation. The shares of the foreign corporation will be eligible for the investment allowance. Assuming the foreign corporation had no permanent establishment in Canada it would not be subject to LCT on its paid-up capital.
6. A trust may be used to hold business assets and liabilities. A simple example of this would be the acquisition of land financed by a mortgage. If a corporation acquires the land, the mortgage will be included in paid-up capital but the land does not qualify for the investment allowance, resulting in an increase in paid-up capital.

The corporation might create a trust to acquire the land subject to the mortgage. The corporation may be the beneficiary of the trust. Provided the mortgage is not a liability of the corporation (i.e. the mortgagee has recourse only against the land), the paid-up capital of the corporation will not be increased as a result of the real-estate transaction.¹⁴

Amalgamations and Wind-ups

There may be adverse capital tax consequences when companies are merged. This may occur, for example, on amalgamating a parent and subsidiary or winding-up a subsidiary into a parent company, if the parent's cost in the subsidiary's shares is higher than the amount shown by the subsidiary as shareholders' equity.

This excess cost would often be present when the parent has recently acquired the subsidiary at a price in excess of the net asset value of the subsidiary. Since consolidation accounting is not used for LCT purposes, the parent will have the benefit of the higher cost of shares in computing investment allowance, whereas the subsidiary will use its lower shareholders' equity for computing paid-up capital.

When, however, the parent and subsidiary are amalgamated then the investment is eliminated and the assets of the amalgamated company will be increased to recognize their higher values. The assets that are frequently written up for LCT purposes include goodwill and other depreciable property. Since these assets do not qualify for the investment allowance, the amalgamation will result in higher paid-up capital for the amalgamated company.

¹⁴ For provincial purposes, for example in Ontario, it may be necessary to use a beneficiary in a province that has no provincial capital tax, since Ontario rules may allocate the trust liabilities to a beneficiary.

Example:

(1) Before amalgamation

Parent company		
Investment in subsidiary	1,000	
Shareholders' equity	1,000	
Subsidiary company		
Business assets – cost	400	(FMV 1,000)
Shareholders' equity	400	

The capital of parent company of 1,000 is reduced by an investment allowance of 1,000 resulting in capital of nil. Subsidiary company capital is 400. Combined capital is 400 for LCT purposes.

(2) After amalgamation

Amalco	
Business assets	1,000
Shareholders' equity	1,000

The capital is now 1,000 for LCT purposes and there is no investment allowance. Capital has increased by 600.

Capital Tax Rates and Revenue Raising

Although federal capital tax rates are often viewed as relatively modest, capital taxes have been a very effective mechanism for raising revenue. The following data on federal capital taxes and Part I taxes has been made available by Revenue Canada:

	<u>1993</u>
	(Amounts in \$000s)
Part I tax before credits ¹⁵	\$17,760
Part I.3 tax before offset against Part I surtax ("gross")	1,176
Part I.3 tax after offset against Part I surtax ("net")	895
Part VI tax before offset against Part I tax ("gross")	495
Part VI tax after offset against Part I tax ("net")	239

The Part I tax before credits noted above represents tax rate raised at the statutory Part I rate of 28 percent (38 percent less 10 percent income earned in a province).

¹⁵ Part I tax before credits for small business deductions, manufacturing and processing credits, scientific and research tax credits and investment tax credits but after the 10% deduction for income earned in a province.

Tax Policy Issue

It is difficult to estimate the amount of additional revenue that would be raised, for example, by doubling the LCT from 0.225 percent to 0.450 percent. Assuming the credit against LCT for surtax payable would remain intact, some part of an LCT increase would be offset by unutilized surtax payable. For the converse reason, it is difficult to estimate the amount of additional revenue that might be raised by doubling the Part I surtax, for example, from 4 percent to 8 percent. Similarly, the interaction of Part I and Part VI taxes presents a difficulty in measuring the effect of increases in them.

It is likely that an increase in capital taxes would result in a significant overall increase, net of the credit against mainstream tax. Conversely, an increase in Part I tax and surtax would likely be absorbed to a significant extent by capital tax otherwise payable by large corporations and financial institutions.

The above hypothesis points to a disturbing *cul de sac* that has been created by the federal capital tax system:

1. Capital taxes are an attractive vehicle for raising tax revenue.
2. In order to make capital taxes more palatable, a credit mechanism has been used that offsets federal capital taxes against mainstream corporate income tax.
3. At some point capital tax rates may be sufficiently high that they exceed the mainstream tax credit base. This appears to be the current status since significant net capital taxes have been payable, for example, for 1993 and 1994.¹⁶
4. Future mainstream corporate income tax rate increases may be partially ineffective for raising significant additional tax revenues since they will be offset to a great extent by the overhang of capital taxes. Income tax *rate* increases would therefore mainly affect smaller corporations.
5. If federal tax revenues are to be increased by way of tax rate increases in the future, the most effective way will be through further increases in capital tax rates.
6. As capital tax rates increase, the inequities and problems of the capital tax system become more pronounced. In addition, the burden of corporate tax will be shifted further to large corporations, financial institutions and those other corporations subject to capital taxes in the future.

¹⁶ The net liability for federal capital taxes may arise for reasons other than the rate at which capital taxes are levied. For example, loss corporations and start-up corporations, as discussed above, may be subject to capital taxes regardless of the rate levied. Also, corporations that enjoy accelerated tax write-offs may pay little or no Part I tax but still be subject to federal capital tax. However, the discussion above regarding the required rate of return on investment indicates that the current rates of capital tax are sufficiently high that they have outstripped the ability for a full offset by mainstream taxes.

Further increases to capital tax rates may be difficult for the federal government to resist because of the apparent "gearing ratio" of capital taxes and mainstream taxes. For example, using the data for the 1993 taxation year above, and ignoring the offset issue between capital taxes and mainstream taxes, it appears that an increase of one percentage point in LCT (i.e. an increase from the 1993 rate of 0.2 percent to 1.2 percent) would raise additional revenue of \$4.5 billion, which is equivalent to a 9.5 percentage point increase in Part I tax (increase from 38 percent to 47.5 percent). This gearing ratio of 1:9.5 makes capital taxes an alluring choice for raising additional tax revenues.

Alternatively, the federal government might consider changing the mix of capital taxes and income taxes with a view to reducing the capital tax rate. Again, ignoring the offset issue between capital taxes and mainstream taxes, if the objective, for example, were to eliminate the LCT and Part VI capital tax rates, the Part I rate would have to increase from 38 percent to approximately 40.5 percent in order to be revenue neutral. This illustrates that as capital taxes become more significant and entrenched in the tax system, it becomes increasingly difficult to reduce their role.

Summary of Potential Distortions

The potential distortions caused by the federal capital taxes described in this paper may be summarized as follows:

1. Canadian capital taxes (federal and provincial) may act as a disincentive to foreign multinationals that compare costs associated with investment in Canada to those associated with investment in another country such as the United States.
2. There is a built-in bias against manufacturing companies that typically invest in plant and equipment funded by debt or equity. Also, manufacturers have less benefit than many other companies from offsets against the capital tax base for investments which are typically made in new plant and equipment plus additional plant labour.
3. Corporations may reduce liabilities at year end or take more extreme measures, such as transferring portfolio investments to foreign corporations or holding business assets in a trust in order to minimize capital taxes.
4. Financial institutions may be influenced to reduce obligations issued for a term of five years or more in order to minimize Part VI tax.
5. Corporations may decide against merging by amalgamation or winding-up due to adverse capital tax consequences.
6. Companies incurring large losses and companies investing in new projects may be subject to substantial capital taxes.

Summary Recommendations

1. In the interests of simplicity, some effort should be made to harmonize the federal LCT and the provincial capital taxes. For example, the LCT rules for the investment allowance should include term deposits, bankers' acceptances and guaranteed investment certificates. This would give an offset against paid-up capital for excess available funds, in a way similar to most provinces, and would eliminate the requirement to reduce liabilities at year end to achieve this result.
2. Tax rates for LCT and Part VI purposes should not be allowed to increase from present levels. Higher rates will increase inequities in application. The inequities noted in this paper include:
 - capital taxes imposed on loss companies;
 - capital taxes imposed on companies involved in large capital projects;
 - bias against manufacturing companies; and
 - difficulty of earning sufficient return to fully utilize the offset against mainstream taxes.

Higher rates will also increase competitive disadvantages for new investment and lead to greater dependency on capital taxes for raising revenue.

3. Consideration should be given to an alternative minimum corporate tax at the federal level in lieu of the LCT and/or Part VI tax. This would eliminate or reduce inequities and competitive disadvantages. This might be implemented together with a substantial reduction in the rate of capital taxes and perhaps even a phasing out of federal capital taxes.

Appendix A

Calculation of Provincial Capital Tax Payable and LCT for Canadian Resident (Non-banking or Trust) Corporations

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
PAID-UP CAPITAL INCLUSIONS (applicable share of joint ventures and partnerships should be included)						
1) Capital						
Paid-up capital stock – include premiums, deduct discounts and exclude subscriptions receivable	Yes	Yes	Yes	Yes ⁽¹⁾	Yes	Yes
2) Surplus Accounts						
(i) Retained earnings (if deficit, deduct)	Yes	Yes	Yes	Yes ⁽²⁾	Yes	Yes ⁽³¹⁾
(ii) Capital surplus	Yes	Yes	Yes	Yes	Yes	Yes
(iii) Contributed surplus	Yes	Yes	Yes	Yes	Yes	Yes
(iv) Appraisal surplus arising from a bona fide appraisal	Yes	No	Yes	Yes	Yes	Yes
(v) Income of subsidiaries recognized on equity basis	No	Yes	Yes	Yes	Yes	No ⁽³⁰⁾
(vi) Government grants or forgivable loans	Yes	Yes	Yes ⁽³⁾	Yes	Yes	Yes
(vii) Dividends declared but unpaid	No	No ⁽⁴⁾	No, unless over 6 months	No, unless unpaid after 365 days	No, if paid in reasonable time	Yes
(viii) Any other surplus	Yes	Yes	Yes	Yes	Yes	Yes ⁽³¹⁾

Appendix A (Cont'd) **Calculation of Provincial Capital Tax Payable and LCT** **for Canadian Resident (Non-banking or Trust) Corporations**

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
3) Reserves						
(i) Include excess (deduct shortfall) of						
(a) UCC over NBV of depreciable assets excluding appraisals ⁽¹⁰⁾	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	No
(b) unclaimed federal Sec. 66 resource expenses over NBV of exploration and development expenses	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	No
(c) cumulative book write-offs of goodwill etc., over cumulative deductions of eligible capital expenditures for tax purposes	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	No
(d) current scientific research expenditures not deducted for tax purposes over NBV of research and development expense	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	No
(ii) Deferred income tax credits (deduct debits if booked)	N/A ⁽³⁴⁾	Yes	Yes	Yes	Yes	Yes
(iii) Special refundable federal taxes charged to retained earnings	N/A ⁽³⁴⁾	No adjustment	No adjustment	No adjustment	No adjustment	No adjustment

Appendix A (Cont'd) **Calculation of Provincial Capital Tax Payable and LCT** **for Canadian Resident (Non-banking or Trust) Corporations**

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(iv) The following reserves, if deducted in computing income for book purposes as well as tax purposes: (a) Federal Sec. 20(1)(n) income reserve	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	Yes ⁽²¹⁾
(b) Federal Sec. 40(1)(a)(iii) and 44(1)(e)(iii) reserves	N/A ⁽³⁴⁾	Yes	No	No	Yes	Yes ⁽²¹⁾
(v) Provision for current income, LCT and capital taxes payable	N/A ⁽³⁴⁾	No	No	No	No	No ⁽²⁷⁾
(vi) Reserves allowed for income tax purposes but not booked (including reserve for doubtful accounts and other amounts allowed for income tax purposes but not booked)	N/A ⁽³⁴⁾	No	No	No	No	No
(vii) Include excess (deduct shortfall) of "obligations under a capital lease" over "assets of a capital lease" where lease is treated as a lease for tax purposes	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	No

Appendix A (Cont'd) **Calculation of Provincial Capital Tax Payable and LCT** **for Canadian Resident (Non-banking or Trust) Corporations**

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(viii) All other reserves not shown above, unless deductible for income tax purposes (including warranty reserves, deferred income reserve, hold-back payable reserve, write-down reserve on marketable securities, and other amounts deducted for book purposes that exceed amounts deducted for tax purposes)	Generally no adjustment for reserves; follow GAAP treatment ⁽³⁴⁾	Yes	Yes ⁽⁴⁶⁾	Yes	Yes	Yes ⁽²¹⁾
4) Loans and Advances (including related interest payable) ⁽²⁰⁾⁽³⁷⁾						
(i) Direct or indirect loans or advances from all shareholders or any person related to a shareholder ⁽⁵⁾	Yes	Yes	Yes	Yes	Yes	Yes
(ii) Loans from individuals (other than shareholders or any person related to a shareholder)	Yes	Yes, for taxation years ending after May 19, 1993 ⁽⁴⁴⁾	Yes, for taxation years begin after May 9, 1995 ⁽⁴⁷⁾	Yes	No, unless secured by property	Yes
(iii) Loans from corporations (other than shareholders or any person related to a shareholder)	Yes	Yes	Yes	Yes	Yes	Yes

Appendix A (Cont'd)
Calculation of Provincial Capital Tax Payable and LCT
for Canadian Resident (Non-banking or Trust) Corporations

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(iv) Loans and advances from governments	Yes	Yes	Yes, for taxation years beginning after May 9, 1995 ⁽⁴⁸⁾	Yes	Yes, unless guaranteed secured	Yes
(v) Bank loans						
(a) Bank overdrafts – per f/s	Yes, but deduct o/s cheques used to settle "current a/p" included in f/s balance	Yes, but back-out o/s cheques included in f/s balance	Yes, but back-out o/s cheques included in f/s balance	Yes, but back-out o/s cheques included in f/s balance	Yes, but back-out o/s cheques included in f/s balance	Yes
(b) Operating bank loans not secured by receivables or other property	Yes	Yes	Yes	Yes	Yes	Yes
(c) Secured bank loans	Yes	Yes	Yes	Yes	Yes	Yes
(d) Capital bank loans	Yes	Yes	Yes	Yes	Yes	Yes
(e) Bankers' acceptances or short-term finance	Yes	Yes ⁽²⁴⁾	Yes ⁽²⁵⁾	Yes	Yes	Yes ⁽²⁶⁾
(f) Bankers' acceptances (unsecured) issued to suppliers for purchase of inventory						
i) issued to corporations	Yes	Yes ⁽²⁴⁾	Yes ⁽²⁵⁾	Yes	Yes	Yes ⁽²⁶⁾
ii) issued to shareholders	Yes	Yes ⁽²⁴⁾	Yes ⁽²⁵⁾	Yes	Yes	Yes ⁽²⁶⁾

Appendix A (Cont'd) **Calculation of Provincial Capital Tax Payable and LCT** **for Canadian Resident (Non-banking or Trust) Corporations**

		B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(vi)	Trade accounts payable to						
	(a) shareholder – individual – corporate	No, unless outstanding more than 120 days prior to year end ⁽³⁷⁾	No ⁽¹⁶⁾	No, unless over 6 months ⁽¹⁶⁾	Yes	Yes	Yes, if ⁽²⁸⁾ outstanding more than 365 days prior to year end
	(b) related corporations	No, unless outstanding more than 120 days prior to year end ⁽³⁷⁾	Yes ⁽⁹⁾	No, unless over 6 months	Yes, if over 90 days	Yes	Yes, if ⁽²⁸⁾ outstanding more than 365 days prior to year end
	(c) corporations that are not related	No, unless outstanding more than 120 days prior to year end ⁽³⁷⁾	Yes, if outstanding at least 365 days prior to year end	No, unless over 6 months	Yes, if over 90 days	Yes, if over 90 days	Yes, if ⁽²⁸⁾ outstanding more than 365 days prior to year end
	(d) individuals that are not related	No, unless outstanding more than 120 days prior to year end ⁽³⁷⁾	Yes, if outstanding at least 365 days prior to year end	No, unless over 6 months	No	No	Yes, if ⁽²⁸⁾ outstanding more than 365 days prior to year end
(vii)	Bonds, debentures, mortgages and lien notes payable held by another corporation or shareholder	Yes	Yes	Yes	Yes ⁽⁶⁾	Yes ⁽¹⁴⁾	Yes
(viii)	All secured indebtedness (gross amount) not included elsewhere	Yes	Yes	Yes	Yes ⁽⁴²⁾	Yes	Yes

Appendix A (Cont'd)

Calculation of Provincial Capital Tax Payable and LCT for Canadian Resident (Non-banking or Trust) Corporations

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴⁾
(ix) Unsecured debt held by individuals other than shareholders or persons related to shareholders	Yes	Yes, for year ends after May 19, 1993	No, unless over 6 months	Yes	No	Yes
(x) Obligation under a capital lease as defined by CICA Handbook para. 3065.09, which						
(a) is treated as a lease for income tax purposes ⁽⁷⁾	Yes	No	No	No	No	No
(b) is treated as a purchase for income tax purposes	Yes	Yes	Yes	Yes	Yes	Yes
PAID-UP CAPITAL DEDUCTIONS						
1) Earnings deficit	Yes	Yes	Yes	Yes ⁽²⁾	Yes	Yes ⁽³¹⁾
2) Deferred income tax debit, net (if booked)	Yes	Yes	Yes	Yes	Yes	Yes
3) Special refundable federal taxes if disclosed as an asset on the balance sheet	No	Yes	No	No	Yes	No
4) Amounts deducted for income tax purposes in excess of amounts booked, including						
(i) shortfalls identified on page A-1 "Reserves," para. 3(i)(a) to (d)	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	No

Appendix A (Cont'd)
Calculation of Provincial Capital Tax Payable and LCT
for Canadian Resident (Non-banking or Trust) Corporations

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(ii) deferred expenses of issuing bonds and debentures (excluding any discounts)	N/A ⁽³⁴⁾	Yes	See 5 below	Yes	Yes	No
(iii) interest and property taxes capitalized in respect of land included in the inventory of a business carried on by the corporation	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	No
(iv) allowance for doubtful accounts deducted for tax purposes but not booked for accounting purposes	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	No
5) Fees and discounts pertaining to issue of bonds to the extent they have not reduced income or surplus per the financial statements – Section 1137(b) of <i>Quebec, Taxation Act</i>	N/A ⁽³⁴⁾	N/A	Yes	N/A	N/A	N/A
6) Receivable under a capital lease that is treated as a lease for income tax purposes (if not already reflected in UCC/NBV adjustment)	N/A ⁽³⁴⁾	Yes	No	Yes	Yes	No

Appendix A (Cont'd)

Calculation of Provincial Capital Tax Payable and LCT for Canadian Resident (Non-banking or Trust) Corporations

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴⁾
GOODWILL ALLOWANCE AND OTHER DEDUCTIONS						
1) Goodwill allowance (based on a formula) Goodwill (if book value of goodwill exceeds its real value) and other intangibles	No	No, for taxation years ending after May 19, 1993 Yes, other than eligible capital expenditures for taxation years ending before May 20, 1993	No	Yes	Yes	No
2) Discounts on certain issues of shares or bonds	No	Yes	See 5 above	Yes	Yes	No
3) Deferred Canadian mining exploration and development expenses that have not yet been deducted for income tax purposes	No ⁽³⁹⁾	Yes	No	No	Yes	No
INVESTMENT ALLOWANCE CALCULATION						
4) Investment allowance Eligible investments						
(a) Term deposits and banker's acceptances with Canadian bank or foreign bank	No	Yes ⁽⁸⁾	No ⁽³³⁾	Yes	Yes, if outstanding over 90 days	No
(b) GICs of Canadian or foreign trust companies	No	Yes ⁽⁸⁾	No	Yes	Yes, if outstanding over 90 days	No
(c) Federal and provincial government bonds	No	Yes ⁽⁸⁾	No	Yes	Yes	No

Appendix A (Cont'd)
Calculation of Provincial Capital Tax Payable and LCT
for Canadian Resident (Non-banking or Trust) Corporations

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(d) Bonds, debentures or other securities of any government, utility, municipal or school corporation	Yes, if outstanding at least 120 days prior to year end ⁽³⁵⁾⁽⁴⁵⁾	Yes ⁽⁸⁾	Yes ⁽¹⁵⁾	Yes	Yes	Yes ^(22, 23)
(e) Bonds, debentures and lien notes of other corporations	Yes, if outstanding at least 120 days prior to year end ⁽³⁵⁾	Yes	Yes ⁽¹⁵⁾	Yes	Yes	Yes ⁽²³⁾
(f) Mortgages due from other corporations	Yes, if outstanding at least 120 days prior to year end ⁽³⁵⁾	Yes	Yes	Yes	Yes	Yes ⁽²³⁾
(g) Shares in other corporations (greater of book value or cost)	Yes	Yes ⁽¹⁷⁾	Yes	Yes	Yes	Yes ⁽²³⁾⁽²⁹⁾
(h) Amounts due from a parent corporation with head office outside Canada	Yes, if outstanding at least 120 days prior to year end ⁽³⁵⁾	Yes, if outstanding at least 120 days prior to year end	No	Yes	Yes	Yes ⁽²³⁾
(i) Amounts due from a related corporation with head office outside Canada	Yes, if outstanding at least 120 days prior to year end ⁽³⁵⁾	Yes, if outstanding at least 120 days prior to year end	Yes ^(15a)	Yes	Yes	Yes ⁽²³⁾
(j) Other corporate loans and advances not mentioned above	Yes, if outstanding at least 120 days prior to year end ⁽³⁵⁾	Yes	Yes ⁽¹⁵⁾	Yes	Yes	Yes ⁽²³⁾
(k) Loans and advances to governments	No	Yes ⁽⁸⁾	No	Yes	No, unless secured by property	No

Appendix A (Cont'd)

Calculation of Provincial Capital Tax Payable and LCT for Canadian Resident (Non-banking or Trust) Corporations

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(l) Shares and bonds of or loans and advances to corporations exempt from capital tax	Yes, if outstanding at least 120 days prior to year end ⁽⁴⁵⁾	No	Yes	Yes	Yes	No ⁽²³⁾
(m) Trade accounts receivable from						
(i) related corporation	Yes, if outstanding at least 120 days prior to year end	Yes, if outstanding at least 120 days prior to year end ⁽⁹⁾	No	Yes, if over 90 days	Yes, if over 90 days	No
(ii) corporations that are not related	Yes, if outstanding at least 120 days prior to year end	Yes, if outstanding at least 365 days prior to year end	No	Yes, if over 90 days	Yes, if over 90 days or secured by property	No
(iii) individuals	No	No	No	No	No ⁽¹³⁾	No
(n) Receivable (from another corporation) under a capital lease as defined by CICA Handbook para. 3065.09 that: ⁽⁷⁾	Yes, due from a corporation and outstanding at least 120 days prior to year end					
(i) is treated as a lease for income tax purposes ⁽⁷⁾		No	No	No	No	No
(ii) is treated as a sale for income tax purposes		Yes ⁽¹⁸⁾	No	Yes	Yes	Yes
(o) Investment in a ship or aircraft (at carrying value)	Yes ⁽³²⁾	No	No	No	No	No
(p) Security posted pursuant to section 10 of the <i>Mines Act</i>	Yes	No	No	No	No	No

Appendix A (Cont'd) **Calculation of Provincial Capital Tax Payable and LCT** **for Canadian Resident (Non-banking or Trust) Corporations**

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(g) Interests in Mining Reclamation Trusts defined under 248(1) of the ITA	Yes	(49)	(49)	(49)	(49)	(49)
5) B.C. eligible expenditures ⁽³⁶⁾	Yes ⁽³⁶⁾	N/A	N/A	N/A	N/A	N/A
Total Assets (for investment allowance formula)						
Inclusions						
(a) Total assets per B/S ⁽¹⁹⁾	Yes ⁽³⁸⁾	Yes ⁽¹⁷⁾	Yes	Yes	Yes	N/A
(b) Government grants and forgivable loans deducted from fixed assets	Yes ⁽³⁸⁾	Yes	No adjustment	Yes	Yes	N/A
(c) Excess of UCC over NBV of fixed assets ⁽¹⁰⁾	No adjustment	Yes	No adjustment	Yes ⁽¹¹⁾	Yes ⁽¹¹⁾	N/A
(d) Amortization of assets not allowed for income tax purposes	No adjustment	Yes	No adjustment	Yes	Yes	N/A
(e) Federal 20(1)(n) reserve booked	No adjustment	Yes	No adjustment	Yes	Yes	N/A
(f) Federal 40(1)(a)(iii) and 44(1)(e)(iii) reserves booked	No adjustment	Yes	No adjustment	No	Yes	N/A
(g) Reserves not allowed for income tax purposes deducted directly from assets (e.g. contingent and investment reserves)	No adjustment	Yes	Yes, only if it is not a reserve relating to the amortization or depletion of an asset	Yes	Yes	N/A

Appendix A (Cont'd)

Calculation of Provincial Capital Tax Payable and LCT

for Canadian Resident (Non-banking or Trust) Corporations

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(h) Non-deductible portion of reserve booked (e.g. doubtful debts)	No adjustment	Yes	Yes, as above	Yes	Yes	N/A
(i) Excess of equity value of investment in other corporation over cost	No adjustment	No adjustment	No adjustment	No adjustment	No adjustment	N/A
(i) Excess of cost over equity value of investment where equity value shown in balance sheet	Yes	Yes	Yes	Yes	Yes	N/A
(k) Proportionate share of assets of joint venture or partnership investment	Yes ⁽³⁸⁾	Yes	Yes ⁽⁴⁰⁾	Yes	Yes	N/A
(l) Excess of obligations under a capital lease over assets of a capital lease where lease is treated as a lease for income tax purposes	No adjustment	Yes	No	Yes	Yes	N/A
Deductions						
(a) Goodwill allowance	No adjustment	Yes	No adjustment	Yes	Yes	N/A
(b) Excess of NBV over UCC of fixed assets ⁽¹⁰⁾	No adjustment	Yes	No adjustment	Yes ⁽¹¹⁾	Yes ⁽¹¹⁾	N/A
(c) Lessor's unearned income (if shown as a liability) under capital leases that are being treated as leases for income tax purposes	No adjustment	Yes	No	Yes	Yes	N/A

Appendix A (Cont'd) **Calculation of Provincial Capital Tax Payable and LCT** **for Canadian Resident (Non-banking or Trust) Corporations**

	B. C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴¹⁾
(d) Deferred mining exploration and development expenses	No adjustment	Yes	No adjustment	No	Yes	N/A
(e) Deferred tax debit balance	No adjustment ⁽⁴³⁾	Yes	No	Yes	Yes	N/A
(f) Contract hold-backs, deductible for income tax purposes	No adjustment	Yes	No adjustment	Yes	Yes	N/A
(g) Prepaid expense deductible for income tax purposes	No adjustment	Yes	No adjustment	Yes	Yes	N/A
(h) Deferred expenditures deductible for income tax purposes	No adjustment	Yes, if deducted for tax purposes	No adjustment	Yes	Yes	N/A
(i) Discount on shares	No adjustment	Yes	No adjustment	Yes	Yes	N/A
(j) Discount on debentures, deductible for income tax purposes	No adjustment	Yes	No adjustment	Yes	Yes	N/A
(k) Investment in joint venture or partnership	Yes ⁽³⁸⁾	Yes	Yes ⁽⁴⁰⁾	Yes	Yes	N/A
(l) Off balance sheet adjustment (T2S(1)) (e.g. vacation pay not accrued for balance sheet purposes)	No adjustment	Yes	No adjustment	No adjustment	Yes	N/A
(m) Excess of assets of a capital lease over obligations under a capital lease where a lease is treated as a lease for income tax purposes	No adjustment	Yes	No	Yes	Yes	N/A

Appendix A (Cont'd)

**Calculation of Provincial Capital Tax Payable and LCT
for Canadian Resident (Non-banking or Trust) Corporations**

	B.C.	Ontario	Quebec	Manitoba	Sask.	Federal LCT ⁽⁴⁰⁾
(n) Lessor's unearned income (if shown as a liability) under capital leases that are being treated as sales for income tax purposes	No adjustment	Yes	No	Yes	Yes	N/A

NOTES

- (1) Including premiums but not including discounts.
- (2) Excluding any amount that represents a loss of a subsidiary recognized on an equity basis.
- (3) Unless deducted from the cost of the related fixed assets, or used to reduce the amount of amortization, even if reflected as a deferred credit on the balance sheet.
 - Included: a loan or grant that is not forgiven (i.e. conditions have not been met and it must be repaid) where the resulting debt exists for more than 6 months or is secured by property of the corporation.
 - Excluded: a forgivable loan or grant as well as a forgiven loan or grant that is shown as a reduction of fixed assets or as a deferred credit (as such will affect retained earnings through reduced depreciation or amortization).
- (4) Unless unpaid at the end of the year following the year in which they were recorded and owed to a person with whom the corporation was not dealing at arm's length.
- (5) Accrued bonuses to officers and employees where such bonuses are in respect of services rendered to the corporation in the individuals' capacity as an officer or employee should be excluded except in Manitoba and Ontario where salary and bonuses (owed to a person with whom the corporation was not dealing at arm's length) are included if outstanding at the end of the year following the year in which they were recorded.
- (6) Lien notes are excluded for farm machinery, truck and automobile dealerships if the lien note represents financing by way of wholesale paper secured by a specific charge on new or used motor vehicles or farm equipment inventory.
- (7) All the provinces (except for B.C.) currently levying capital tax make adjustments for leases based on the income tax treatment of leases, which reflects the legal rights and obligations of the parties. In law, and therefore for income tax purposes, the only issue to be resolved is whether a particular transaction is a lease or a purchase. There is no concept in law which parallels the classification of a capital lease that has been created for accounting purposes.

Where the accounting criteria results in a lease being treated for accounting purposes in a manner that differs from what is reported in the client's income tax return, it is generally necessary to make the adjustments outlined in this schedule to arrive at paid-up capital and total assets.
- (8) Include only those items which have been issued and held by the corporation for at least 120 days before year end. The 120-day rule does not apply to an investment dealer or a broker where these securities are held for sale in the dealer's inventory. The 120-day rule applies to short-term investments in commercial paper, T-bills, government bonds and bankers' acceptances. It appears that bonds, debentures and other securities of municipal and school corporations may not be subject to the 120-day rule; however, where this applies to a particular client situation, more detailed research should be carried out.
- (9) Include only the balance from a related company outstanding for at least 120 days prior to the taxpayer's year end. Obligations of the same nature due to and from the same company may be netted if that company is associated with or affiliated to the taxpayer corporation.
- (10) NBV should not include amounts in respect of leased assets which have been recorded in the lessee's financial statements due to accounting concepts of "capital leases" that continue to be treated as leases for income tax purposes. NBV should include the net investment in leased assets (total lease payments receivable less unearned income) that have been recorded in the lessor's financial statements as capital leases that continue to be treated as leases for income tax purposes.

Also note that the NBV of assets "not available for use" should not be included since these assets should not be included in UCC balance.
- (11) Excluding appraisal increases to NBV.
- (12) If a government grant reduces the cost base of an asset for income tax purposes, Ontario administrative practice is to allow the value of the government grant required to be added to paid-up capital to be "ground down" at a rate equivalent to that used in calculating capital cost allowance on the related asset. Any CCA "claimed" against the government grant will not affect the UCC/NBV adjustment to paid-up capital.

- (13) Amounts receivable from individual shareholders or related individuals are included in the investment allowance calculation for Saskatchewan.
- (14) Bonds, debentures, etc., held by another corporation are included in paid-up capital for Saskatchewan only if secured by property or guaranteed by any other corporation, financial institution or government. If held by a shareholder, no security is required in order to be included.
- (15) The amount of loans or advances to other corporations is deemed not to include commercial paper issued by a corporation, unless it was issued for a period of 120 days or more, or issued for an undetermined period, and was held by the taxpayer for at least 120 days prior to the end of its taxation year.

An anti-avoidance rule exists, whereby no deduction or reduction will be allowed with respect to a loan or an advance granted to another corporation if it has been established that this loan or advance was made as part of a series of loans and repayments with a view to unduly reducing the corporation's paid-up capital.

The Minister of Revenue of Quebec has been paying close attention as to what constitutes a "loan or advance" for the purpose of the investment allowance. In order for an amount to qualify as a "loan or advance" for investment allowance purposes, a debtor-creditor relationship must exist and there must be an actual delivery of money in the form of a loan or advance. Based on this interpretation, a note receivable resulting from the sale of assets (e.g. balance of sale) will generally not qualify for the investment allowance (unless the balance of sale bears interest and is secured by a mortgage on the property sold).
- (15a) Only include bonds, loans and/or advances from related corporations with head office outside Canada.
- (16) It appears that a position can be taken that accounts payable to an individual shareholder are not required to be included in paid-up capital as they do not represent "a sum or credit advanced or loaned to the corporation." Ontario's administrative practice, however, is to include such amounts in paid-up capital if they have been outstanding for 120 days or more prior to the end of its taxation year.
- (17) FAPI of a foreign affiliate is required to be included in the "Cost of Investments" and "Total Assets" for Ontario capital tax purposes.
- (18) The net investment in leased assets (total lease payments receivable less unearned income) qualifies for the investment allowance.
- (19) Total assets should not include amounts in respect of leased assets that have been recorded in the lessee's financial statements due to accounting concepts of capital leases that continue to be treated as leases for income tax purposes.
- (20) Ontario has indicated that its administrative practice regarding both accrued interest and interest payable is to require the amount to be included in paid-up capital only if the amount has been outstanding for 365 or more days prior to the end of the taxation year (similar to an advance or a loan). However, the position with respect to accrued interest does not appear to be justified since it is by definition not yet payable and therefore cannot be "aged."
- Revenue Canada takes the position that, for purposes of calculating LCT, interest payable would be included in the capital of a corporation as "other indebtedness" only if it is outstanding for more than 365 days, and that interest receivable would not qualify for inclusion in the investment allowance of a corporation.
- Quebec has indicated that accrued interest must be included if it is greater than 6 months, unless the interest is secured, in which case it would be included, regardless of its aging.
- (21) During the Revenue Canada Round Table at the 1994 TEI Conference, Revenue Canada provided its comments that where a corporation has deferred revenue in respect of which they could claim a reserve under S.20(1)(n), 20(1)(m), 20(1)(m.1) or 20(1)(m.2), whether the reserve is actually claimed for tax purposes or not, the entire amount of the deferred revenue is to be treated as a loan or advance and included in paid-up capital.
- (22) Restricted to issuers that are corporations.

- (23) Not available for shares or indebtedness of a corporation that is exempt from tax under section 149 (other than because it is not resident in Canada or does not do business through a permanent establishment in Canada).
- At the B.C. Tax Executive Institute Conference, December 1992 Round Table RCT confirmed its position concerning prepaid expenses: "Prepaid expenses which have been paid to another corporation (other than a financial institution) would qualify for inclusion in the calculation of the investment allowance of the payor corporation pursuant to para. 181.2(4)(b) of the Act as an 'advance' to the recipient corporation."
- Only loans and advances to a partnership *all* the members of which are taxable corporations may be included.
- (24) Bankers' acceptances regardless of the term or the purpose for which they are issued are included in paid-up capital.
- (25) Bankers' acceptances and similar securities are included in paid-up capital for taxation years ending after May 14, 1992. Prior to this date, you could take the position that such amounts did not have to be included in paid-up capital, although this position was contrary to Revenue Quebec's assessing policy.
- (26) Effective for taxation years ending after December 20, 1991.
- (27) Revenue Canada's view is that current taxes payable constitute "other indebtedness" of the corporation and would be included in the capital of the corporation to the extent that the taxes payable have been outstanding in excess of 365 days. Also included would be a portion of the tax liability if the current taxation year exceeded 365 days on the basis that income is earned evenly throughout the taxation year. Any taxes payable with respect to a proposed assessment of a prior taxation year would be included in the calculation of the capital of the corporation as the liability for those taxes would be considered to have arisen in that prior year.
- In response to a question from the Institute of Chartered Accountants of British Columbia, at their 1992 ICABC/RCT Liaison Committee, Revenue Canada indicated that a corporation's accrual for LCT liability must be added back in the computation of capital, by reason of paragraph 181.2(3)(b).
- (28) It is Revenue Canada's view that in those circumstances where a netting of accounts receivable and accounts payable constitute a payment of the trade liabilities that have been outstanding for more than 365 days, only the net amount would be included in the capital of the corporation.
- (29) An investment in a mutual fund is included only to the extent that the investment is represented by shares of a mutual fund corporation and not by units of a mutual fund trust.
- (30) In part (c) to question #32 at the 1991 Revenue Canada Round Table, the Department stated that undistributed partnership earnings should be included in the capital of each corporate partner (based upon the partner's proportionate entitlement to earnings).
- (31) Includes deferred unrealized foreign exchange gains and losses.
- (32) An investment in a ship or aircraft shall not be included in the investment allowance unless the income from the operation of the ship or aircraft is exempt under paragraph 81(1)(c) of the Income Tax Act.
- (33) Term deposits are not included in "eligible investments." However, for taxation years ending after May 14, 1992, bankers' acceptances (and any similar securities) will be eligible for the investment allowance, subject to the 120-day rule that currently applies to commercial paper (see note 15).
- (34) Retained earnings are not adjusted. B.C. capital tax follows GAAP. Therefore, if an amount is included on the right-hand side of the balance sheet it is included except for "current accounts payable" (see note 37).
- (35) Loans and advances made within 120 days before the end of the taxation year of the corporation making the loan or advance are not eligible investments. A loan or advance (not an accounts receivable) from an associated corporation with a permanent establishment in B.C. is not subject to the 120-day rules, as long as the taxation year of each corporation ends on the same date; otherwise, it is subject to the 120-day rule. Note that the 120-day rule does not apply to shares.

(36) B.C. eligible expenditures incurred may reduce total paid-up capital "to the extent that they are not written off to retained earnings" and include the following:

- Canadian Development Expenses (CDE as per paragraph 66.2(5)(a) of the Income Tax Act) incurred in B.C. after March 31, 1992, excluding the cost of acquiring the right or licence to store, explore, drill or mine a Canadian mineral resource and rentals or royalties incurred based on production. CDE includes the corporation's share of the above expenditures incurred by a partnership or joint venture of which it is a member.
- Canadian Exploration Expenses (CEE as per paragraph 66.1(6)(a) of the Income Tax Act) incurred in B.C. after March 31, 1992. CEE includes the corporation's share of the above expenditures incurred by a partnership or joint venture of which the corporation is a member.
- Costs incurred in acquiring eligible property. Eligible property is property acquired after March 31, 1992 that is either a building or machinery or equipment that has not previously been used or leased. The property must have been acquired for use in B.C. primarily in specific activities that include manufacturing and processing, exploring for and extracting mineral and industrial resources, oil and gas, cutting standing timber, processing ore to past the prime metal stage, farming or fishing, storing grain and producing or processing steam or all-electric energy for sale (i.e. hydroelectric plant).
- B.C. eligible tourism property acquired after March 31, 1992 to be used primarily in prescribed tourism activities. Eligible property is either a building or structure, machinery or equipment or changes to land constructed by the corporation. The property acquired must not have been used or leased prior to acquisition. Prescribed tourism activities include operating a hotel, motel or other lodging facility, an airport facility, a charter business, a prescribed recreation facility or a tour business.
- B.C. research expenditures incurred after March 31, 1992 in respect of scientific research and as described in paragraph 37(1)(a) or subparagraph 37(1)(b)(ii) of the Income Tax Act; substituting references in those provisions from "Canada" to "British Columbia" and from "taxpayer" to "corporation."

The deduction that a corporation may claim for the above expenditures is equal to the following:

- a) For the first taxation year ending after March 31, 1992, the expenditure incurred between March 31, 1992 and the end of that taxation year multiplied by the number of days in the year to the number of days in the year after March 31, 1992;
- b) For each taxation year, other than the taxation year referred to in a) above, ending on or before March 31, 1994, the eligible expenditure incurred in that year; and
- c) For each taxation year ending after March 31, 1994, the sum of the eligible expenditure incurred by the corporation during its current taxation year and in its immediately preceding taxation year.

(37) Subsection 9(2) of the B.C. Corporation Capital Tax Act includes in total paid-up capital all liabilities but excludes "current accounts payable." "Current accounts payable" are essentially current liabilities under GAAP that represent employee source deductions, current taxes payable, wages and salaries payable, trade accounts payable, "an amount payable to a creditor if (i) the corporation, partnership or joint venture carries on the business of a retail automobile or truck dealership or a retail farm machinery and equipment dealer, and (ii) the amount is secured by a purchase money security interest in itemized motor vehicle inventory or in itemized farm machinery and equipment inventory," and cheques issued and outstanding for current accounts payable in excess of funds on deposit. Current accounts payable does not include current long-term debt or liabilities that have been outstanding for more than 120 days at year end. "Trade accounts payable" is defined as "amounts owing ... to a creditor for the purchase of merchandise, supplies or services from that creditor in the normal course of business."

Note that if a corporation has an interest in a partnership/joint venture, it is required to include its share of the partnership/joint venture's paid-up capital with the exception of liabilities of the partnership/joint venture to the corporation, to an associated corporation with a permanent establishment in B.C. or to other corporations that have an interest in the partnership/joint venture.

- (38) Total assets are defined in subsection 12(1) as "the aggregate of the carrying values of the corporation's assets on its balance sheet at the end of its taxation year, prepared using generally accepted accounting principles other than the equity method of accounting, and includes (a) the amount by which the carrying value of an asset has been reduced by a liability or deferred credit, and (b) where the corporation has an interest in a partnership or joint venture, the proportionate share, within the meaning of section 14.3(2), of the aggregate of the carrying values of the partnership or joint venture assets on the partnership's or joint venture's balance sheet at the end of the taxation year that falls within the corporation's taxation year in respect of which the accounting is made, but does not include (c) the carrying value of the corporation's investment in any partnership or joint venture referred to in paragraph (b)." The calculation is essentially the same as it is for Ontario capital tax purposes.
- (39) Deferred exploration costs are deductible only if the corporation is solely engaged in exploration for a mineral resource, petroleum or natural gas and only to the extent that they have not been deducted already as "B.C. eligible expenditures" (111)(c) of the Act). Discussions with the department indicate that these deferred exploration costs are not restricted to expenditures made in B.C. and may also include expenditures made before March 31, 1992. The department has stated that deferred exploration costs should be defined in accordance with GAAP and are cumulative.
- (40) Proportionate share (based on profits) that the corporation has in the partnership or joint venture less the amount of the interest shown in the financial statements of the corporation.
- (41) Effective January 1, 1993, the 3 percent federal surtax is creditable against any LCT payable (prior to this date, LCT was offset against federal surtax). Accordingly, there will be no additional LCT liability for those corporations that have federal surtax sufficient to reduce LCT. Net LCT paid for a year, that was not offset against the federal surtax, is available to be carried forward to offset federal surtax in the succeeding seven years.
- (42) Effective for taxation years ending after April 20, 1994, unsecured debt of a corporation is to be included in the capital tax base.
- (43) For taxation years ending on or after April 1, 1992 a corporation was able to reduce its taxable paid-up capital by the deferred tax debit recorded on its financial statements. For years ending on or after April 1, 1993, this deduction is not available.
- (44) For taxation years ending before May 20, 1993: no, unless secured by property.
- (45) Note that the 120-day rule does not apply to shares.
- (46) In a recent case, Revenue Quebec considered an advance on contract as a "loan or advance" rather than considering it a reserve, on the basis that a separate provision had not been set up in the books. Quebec's Minister of Revenue later stated, at the 1995 Round Table session of the APFF, that advances on contract should be included as an "advance," and not as a provision or reserve. Interpretation Bulletin 1136-1 is to be modified, which should help to clarify the minister's position.
- Furthermore, regarding asset write-downs, Quebec's Minister of Revenue stated at the same Round Table session (1995, APFF, question 6) that the write-down of fixed assets in accordance with GAAP is not included in paid-up capital, since it does not meet the definition of a "provision or reserve."
- (47) For taxation years beginning before May 10, 1995: no, unless over six months.
- (48) For taxation years beginning before May 10, 1995: no, unless over six months or secured by property of the corporation.
- (49) The 1995 B.C. Budget added interests in mining reclamation trusts (within the meaning of ITA 248(1)), as eligible investments for the purposes of the investment allowance for taxation years ending after February 22, 1995. For the treatment of mining reclamation trust interests for other jurisdictions, a tax specialist should be consulted.

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

Mr. Robert Brown
Price Waterhouse
Toronto, Ontario

Mr. James Cowan
Stewart McKelvey Stirling Scales
Halifax, Nova Scotia

Mr. Wilfrid Lefebvre
Ogilvy Renault
Montreal, Quebec

Professor Nancy Olewiler
Department of Economics
Simon Fraser University
Burnaby, British Columbia

Mr. Stephen Richardson
Tory, Tory, Deslauriers & Binnington
Toronto, Ontario

Professor Bev Dahlby
Department of Economics
University of Alberta
Edmonton, Alberta

Mr. Allan Lanthier
Ernst & Young
Montreal, Quebec

Professor Jack Mintz (Chair)
Faculty of Management,
University of Toronto (on leave)
Clifford Clark Visiting Economist
Department of Finance
Ottawa, Ontario

Mr. Norm Promislow
Buchwald Asper Gallagher Henteleff
Winnipeg, Manitoba

The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

Distribution Centre
Department of Finance
300 Laurier Avenue West
Ottawa, Ontario K1A 0G5
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Compliance Issues: Small Business and the Corporate Income Tax System

Plamondon & Associates Inc.
Ottawa

December 1996

WORKING PAPER 96-9

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
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Compliance Issues: Small-Business and the Corporate Income Tax System

Plamondon & Associates Inc.
Ottawa

December 1996

WORKING PAPER 96-9

Prepared for the
Technical Committee on Business Taxation

Comments on the working papers are invited, and may be sent to:

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Abstract

The corporate income tax system is functioning reasonably well for small business in Canada, with no dramatic flaws or overwhelming irritants. While there is room for improvement, this is the overall conclusion of this report to the Technical Committee on Business Taxation. The report focusses on the nature and extent of incremental compliance costs, specific irritants in the system, and revenue-neutral initiatives that the government could undertake to improve and simplify the system for Canada's entrepreneurs. The data in the report was generated primarily from a discussion panel of six accountants who deal exclusively with small business. Given the absence of any field work with individual small businesses, the representations and opinions should not be viewed as definitive. While noting that the incremental compliance costs for completing a basic corporate tax return for most small-businesses is between \$200 to \$500, the panel recommended: a short-form corporate tax return to promote an understanding of the system; a simpler and fairer system for capital assets; elimination of separate provincial corporate tax administrations; less frequent tax installments; a less costly method of dealing with inactive corporations; more certainty and fewer changes in the system; and, greater consultation with individual small businesses concerning compliance costs and the functioning of the system. The panel also observed: the proper functioning of the Small Business Deduction; tax planning that focusses on income splitting and reorganization of share capital; clearly legitimate claims for R&D credits not being made; the use of estimating techniques to comply with non or partial deductibility of expenditures; the complexity of provisions concerning company vehicles; and, the high level of professionalism and level of assistance given to small business by Revenue Canada.

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1. Executive Summary

The corporate income tax system is functioning reasonably well for small business in Canada, with no dramatic flaws or overwhelming irritants. While there is room for improvement, this is the overall conclusion of this report to the Technical Committee on Business Taxation, established in the 1996 budget to review Canada's business tax system.

While the Committee's primary objective is to determine how the tax system can contribute more to the creation of jobs, the Committee is also examining related issues such as complexity, compliance costs and overall level of fairness of the system. This report is in support of the Technical Committee's work and examines one aspect of business taxation: small business and the corporate income tax system. In particular, this report focusses on the nature and extent of incremental compliance costs, specific irritants in the system and revenue-neutral initiatives that the government could undertake to improve and simplify the system for Canada's entrepreneurs.

The data in the report were generated primarily from a discussion panel of six accountants who deal exclusively with small business. The panel centred its discussion around companies with annual revenues of less than \$2 million to focus on those businesses that must grapple with the tax system without the benefit of "in-house" expertise. Other insights were gained from having panelists review their client files and an extensive post-panel review of the report.

Given the absence of any field work with individual small businesses, the representations and opinions contained in this report should not be viewed as definitive. However, the value of this work need not be understated since the panelists work with thousands of small businesses from across Canada and have first-hand experience about how the system operates – or fails to operate.

Specifically, the panel offered the following specific observations and recommendations concerning small business and the corporate income tax system:

1. Small business relies on specialists to complete the corporate tax return. The system is too complex, the return too lengthy and the efficiencies of using a specialist too great to do otherwise.
2. The incremental costs of completing a basic corporate tax return for most small businesses are between \$200 to \$500. This amount does not vary significantly by the type or size of small business. This cost estimate assumes that small businesses maintain core accounting systems that produce management information, including the year-end financial statements that are not "incremental" to the production of the corporate tax returns. The incremental costs, therefore, include the cost of computer input, adjustments from the financial statements on the T2S(1), preparation of accompanying schedules (e.g. capital assets), and, in most cases, a second review by another partner in the accounting firm. Costs associated with tax planning are also excluded for the \$200 to \$500 estimate.

3. Despite the fact that small-business owners certify the completeness and accuracy of the return, they rarely review its contents because of its length and complexity. A short-form small-business corporate tax return was advocated by the panel.
4. The integration concept with the small-business deduction (SBD) working as intended without significant complexity. There was no consensus on whether the SBD limit should be raised or changed to permit a larger low-cost pool of investment capital for small business.
5. Much of the tax planning that occurs in a small business relates to income-splitting, reorganization of corporate share capital, and establishment of family trusts. A prevalent attitude among small-business owners is that, given the risks and uncertainty that comes with self-employment, they are entitled to organize their affairs to pay less tax than someone who enjoys the comfort of a regular salary. The more sophisticated measures of tax planning are a response, in part, to the elimination or reduction of many other deductions for items such as meals, the use of home offices and company vehicles.
6. The tax advisor plays a critical role in how a business owner approaches tax-planning opportunities. They also have a positive influence on compliance with the tax system.
7. The compliance costs associated with making a single claim for research and development (R&D) tax credits are in many cases greater than the level of credit available to most small businesses. Consequently, many clearly legitimate claims for R&D credits are not being made. There is also concern over an emerging industry that makes R&D claims on behalf of clients on a contingency fee basis.
8. The treatment of capital assets could be simplified by reducing the number of asset categories. The system could also be made fairer by permitting a claim for terminal losses when an asset category is substantially depleted.
9. Most small businesses deal with issues of non- or partial deductibility of expenditures by employing estimating techniques (e.g. for meals and entertainment). This approach reduces the overall level of compliance costs and does not necessarily result in a material difference in the amount of tax that would have been assessed had more precise methods of tracking been employed.
10. The provisions of the *Income Tax Act* concerning company vehicles are so complex that most business owners acquire their own cars and charge a "reasonable allowance" to the company for their use. It was suggested that even junior-level Revenue Canada auditors have difficulty computing the taxable benefit on company cars.
11. The existence of separate corporate tax administrations in Ontario, Quebec and Alberta add about 50 percent to the incremental cost of completing tax returns for small businesses in these provinces. Complexity and cost were also noted in maintaining two tax instalment accounts. Given the very minor differences in tax policy, the panel did not see the benefit of sustaining separate bureaucracies.

12. The operation of tax instalments should be simplified by eliminating the requirement for small businesses to make monthly payments. Quarterly payments were recommended, since this frequency coincides with the filing of the Goods and Services Tax (GST) return and payment. Small businesses, however, would prefer a system where they continue to remit separate cheques for different taxes.
13. It should be less onerous and less costly to complete tax returns for inactive corporations. It was recommended that a letter or form signed by the business owner certifying that a business is inactive should satisfy any requirements of Revenue Canada.
14. Generally favourable comments were given about the professionalism and level of assistance given to small business by Revenue Canada.
15. Uncertainty and the frequency of change to the tax system are issues that raise compliance costs. The panel also noted that compliance costs do not appear to be given sufficient consideration when the tax system is being changed. It was thought that greater direct consultation with those who work exclusively with small business would avoid many problems, such as the difficulties associated with the recent change to calendar year-ends for unincorporated businesses.

2. Objectives

As part of the 1996 federal budget, the Minister of Finance, the Honourable Paul Martin, announced the establishment of a Technical Committee to consider ways in which Canada's business taxation system could contribute more to the creation of jobs.

The focus of the Committee's work is to improve the tax system to help create jobs, spur economic growth, simplify the system for business, reduce compliance costs for business and administrative costs for government and enhance fairness. The Technical Committee is to table a report to the Minister, after which public consultations will follow.

The broad objective of this report is to assist the Technical Committee primarily with corporate income tax issues that are of particular concern to small business in Canada. Particularly, the objectives are to respond to the following questions:

- Which compliance issues in the corporate income tax system are of particular consequence to small business?
- What is the range of incremental costs that small businesses incur in complying with the corporate income tax system?
- What specific initiatives might the government enact to minimize compliance problems for small business?

3. Methodology

3.1 Defining Small Business for this Study

While there is no generally accepted definition as to what constitutes a small business in Canada, most studies place an upper limit of an annual revenue below \$5 million.¹

For purposes of the *Income Tax Act*, a preferential tax rate is granted to Canadian-controlled private corporations on the first \$200,000 of taxable income. This level of income could be generated from a business with revenues of slightly over \$200,000 (assuming limited expenses) to businesses with revenues in the millions of dollars.

It is reasonable to assume that businesses with revenues in excess of \$2 million would ordinarily have some in-house accounting expertise that would make them better able to address compliance issues.

Since the focus of this research is to consider "small-business" issues, it is prudent to ensure the focus is on those businesses that do not have "in-house" expertise – those who must deal with the requirements of the *Income Tax Act* on their own or with the assistance of an external advisor. Accordingly, the report will speak primarily about those businesses with revenues below \$2 million.

3.2 Data Gathering

A number of constraints and considerations affected the selection of research methodology for this project, including the following:

- The project duration, from inception to final report, was six weeks;
- Financial resources are limited; and
- Small-business owners themselves are generally not knowledgeable about corporate tax issues and rely on tax specialists to assist them with tax planning and compliance. Their direct involvement in the research, therefore, was unlikely to answer the key research questions.

After consultation with the client and tax practitioners, it was determined that the most efficient, effective and timely manner of gathering data was through the use of a specialist panel. The panel would be knowledgeable about small businesses in general, and specifically how they deal with the corporate income tax system.

¹ This limit has been used by Statistics Canada in a 1986 study profiling small business in Canada.

A panel of accountants has been successfully employed by the research team on three projects, all of which concerned tax policy.² The panel for this project comprised partners in accounting firms that specialize in serving small business.³ The partners would typically serve hundreds of small business clients representing all sizes of businesses and all industries. The panelists also represented different regions of Canada, coming from Vancouver, Toronto, Ottawa, Montreal and Halifax.

3.3 Panel Preparation and Organization

The panel discussion took place on July 5, 1996. Included in the day-long session were six practising accountants, Robert Plamondon as the moderator and representatives of the Technical Committee Secretariat and the Business Income Tax Division of the Department of Finance.

Panelists were forwarded a copy of the discussion guide before the meeting and instructed to spend one half day to consider the issues identified; think about other relevant issues; and review client files (in particular to assess the incremental cost of completing corporate income tax forms).

The day was guided by an agenda that permitted an open and free-ranging discussion to promote an in-depth exploration of the issues under consideration.⁴ The day began with introductions and an overview of the work of the Technical Committee by John Sargent.

Panelists were encouraged to be vocal throughout the day and to challenge each other if they had a difference of opinion. They were instructed to represent themselves, their clients and the small-business community as a whole. No specific client was mentioned, and all confidences were strictly observed. Further, no specific comments would be attributed to any of the participants.

3.4 Identification of Issues

While the mandate of the Technical Committee is to examine issues related to the business tax system, jobs and economic growth, the directed focus of this work was the compliance burden and specific irritants experienced by small business related to the corporate income tax system.

The issues were initially identified by the research team and reviewed by the Technical Committee. Almost all of the issues discussed during the panel discussion were identified and included in the agenda circulated before the meeting.

² For example *GST Compliance Costs for Small-Business in Canada* by Plamondon & Associates Inc., December 1991.

³ A listing of panelists is included in section 7 of this report.

⁴ See Appendix A for a copy of the agenda.

Some other considerations were made in issue identification, such as the need to maintain the same general level of tax revenue and the requirement that tax policy be co-ordinated with provincial governments.

3.5 Post-panel Review

In addition to preparation and participation in the discussion, all panelists were given a draft copy of the report for their comments. In particular, they were asked to spend an additional one half day to confirm the reporting of the discussion, add additional relevant material and provide illustrations to underscore some of the points and issues raised during the discussions.

4. Issues

4.1 Completing the Corporate Tax Return

4.1.1 By Whom

It was the unanimous view of the panel that virtually all individual businesses do not prepare their own corporate income tax returns as, in all cases, the tax return is completed by an external accountant. This is not the case just for small business, but for many larger businesses as well that have full-time in-house professionals and revenues of over \$50 million.

Businesses seek outside assistance for three reasons. First, they believe they lack the technical knowledge to complete the tax return. Second, they are concerned about changes to the system with which they may not be familiar. Third, they save time and money by having accounting specialists complete the return in the most efficient manner.

Interestingly, even accounting firms have specialists who complete or review corporate tax returns. Partners in the firm who deal with a broad range of issues find it difficult to stay current with the detail of the *Income Tax Act* and regulations. Entry-level staff do not have the requisite experience. It is mid-level staff members, typically with 3 to 10 years of experience, who complete the return. Their specialization makes them very familiar with both the details of the *Income Tax Act* and the computer program that generates the return.

It was noted that the larger and more sophisticated clients prepare most of the background information and schedules that form part of the return. However, for most small businesses without accounting or tax expertise, it is the external accountant who compiles the supporting data and schedules.

When exploring other reasons why specialists are required, the panel noted the frequent and significant changes that are made to the tax system. There is a deep concern that unless someone is dedicated exclusively to tax issues, there is a risk that some issues will be overlooked. The frequent changes, or at least the fear of change and its consequences, are what drives many large corporations to seek outside help, and many accounting firms to use specialists.

4.1.2 How Returns are Completed

Virtually all corporate income tax returns are completed with the use of computer software programs. The programs themselves are relatively inexpensive to acquire, with staff training representing the more significant cost. Focussing the training on only a few individuals within an accountant's office adds to the efficiency of the process.

4.1.3 Incremental Costs

Surprisingly, the panelists reported that the incremental cost to small businesses in having a corporate tax return completed is relatively low – ranging from \$200 to \$500 for most returns. This cost estimate was derived by having the panel review a number of corporate income tax files from their client base and by discussing the issue with the specialists in their offices who complete the returns. All panel members agreed that the \$200 to \$500 range represented a reasonable estimate of incremental costs.

The definition of "incremental" compliance costs requires elaboration. It is assumed that, in every business, there exists a core accounting system that is used to produce information for management: including the year-end financial statements. Thus, the cost of maintaining the accounting records and the production of financial statements are not "incremental" to the production of the corporate tax returns. Once the statements are produced, the accountant uses this data as the foundation for the preparation of the tax return. The incremental costs, therefore, include the cost of computer input, adjustments from the financial statements on the T2S(1), preparation of accompanying schedules (e.g. capital assets), and, in most cases, a second review by another partner in the accounting firm. The costs do not include expenses related to personal or corporate income tax planning, including decisions regarding the salary-dividend mix or the payment of income to family members who are involved in the business.

The cost does not vary significantly by size of business or industry. This means that as a percentage of business revenue or profit, the cost of the return is proportionally much higher for small firms than for larger companies.

The contents of a basic tax return do not vary much from business to business. Even a very small company with a limited number of transactions still has to pay the \$200 to \$500.

The presence of specialized information increases compliance costs. As will be noted later in this report, completing claims for research and development (R&D) tax credits can cost from \$1,500 to \$5,000 in scientific and professional fees.

The panel was asked if the need to compile data on such issues as the partial deductibility of meals and the use of company vehicles added significantly to the level of compliance costs. They reported that most companies take short-cuts and use estimates to deal with many of these issues. They believe that any difference between the estimate and precise data would not result in a material difference in the assessment of tax. Consequently, most businesses and their accountants

are not prepared to invest the time to be precise in their calculations. Even large firms do not keep detailed records on items that require adjustment on tax returns.

4.1.4 Other Issues on the Corporate Tax Return

In open discussion, the panel raised other concerns with the corporate tax return. First, the return was thought to be too long, with too many pages and calculations. Most of the T2 jacket contains nil calculations that have no application to an active small business. As a result, most business owners do not even bother to examine the return and simply rely on their accountants to do the work. It is somewhat discomfoting, therefore, that business owners are certifying the accuracy and completeness of returns when they are so unfamiliar with their contents. It was suggested that a "short-form" return be prescribed that would be available for use by small business with exclusively active business income. The panel attributed some of the problem of lengthy and complicated returns to computer programs that can efficiently spew reams of pages and calculations with little cost or effort. Reading and understanding the return, however, is a different matter.

4.2 Integration

A key feature of the corporate income tax system is the small-business deduction (SBD) that provides a preferential rate of tax on the first \$200,000 of active business income for a Canadian-controlled private corporation. The concept surrounding this issue combined with the dividend tax credit is often referred to as "integration," since the system is designed to generate an approximately equal tax burden between income ultimately received from a corporation rather than from a proprietorship or partnership.

Any business with a taxable income in excess of \$200,000 pays a substantially higher rate of tax, and the integration objective is not achieved. Accordingly, most small businesses ensure that their incomes are below the threshold, usually by accruing bonuses sufficient to bring their taxable incomes below the \$200,000 level. These bonuses must be paid out as wages within six months of the corporate year-end.

A key issue for the panel to consider was the functioning of the small-business deduction and any complexity and compliance costs that resulted. In discussion, it was clear that this part of the tax system works fairly well. Most accountants have developed some easy-to-use rules of thumb, such as:

- pay wages to ensure maximum use of the RRSP;⁵
- use dividends to the point where corporate taxable income remains below \$200,000; and
- give bonuses on any excess income to ensure taxable income is \$200,000 or less.

⁵ If income does not meet the earnings required to achieve the maximum RRSP deduction, the base earnings for CPP could represent another threshold for earnings.

As a result, no income is taxed at the high rate of tax. These rules of thumb may become more complex to apply if the rates of payroll taxes continue to grow and if there is uncertainty over entitlement to the Canada Pension Plan. In this environment, small businesses may lean more toward more compensation from dividends that do not attract payroll tax. Despite the relatively smooth application of the small-business deduction, a number of potentially complicating issues were noted. First, by paying out bonuses to stay below the \$200,000 limit, there are fewer resources available in the business for reinvestment. It would be typical of most businesses in this situation to pay out bonuses, remit the personal tax and lend the balance back to the company as a shareholder loan. However, these businesses need a cash flow to pay bonuses, which is often not available since earnings are often tied up in accounts receivable, inventory and capital assets.

Some panelists argued that the SBD has not kept pace with inflation or the growth in the importance of small business. By increasing the SBD, small businesses would have access to a larger low-cost pool of capital. There was no doubt that they would reinvest more funds if the SBD were increased. Some worried, however, that small businesses would take on a "Treasury Bill" mentality and the rules concerning what is "active business income" would become more complex and abused.

Others suggested that a mid-level tax rate – say for taxable income between \$200,000 and \$400,000 – would be appropriate. However, because a change of this sort carries revenue implications for the government and would add complexity (in particular with associated companies), the suggestion was not pursued in any detail.

It was noted that not all small businesses with high income levels bonus-down to the \$200,000 level. Because the regular corporate income tax rate is lower than the highest marginal personal income tax rate, tax-deferral advantages remain when taxable income is above \$200,000. Funds taxed at the high rate would likely have to stay invested in the business for 10 years or more before it became "economically" advantageous over the long term. Few businesses, however, have the sophistication to perform the cost-benefit analysis or the predictability of cash-flows to make this type of decision. As a result, the overwhelming majority of businesses ensure that their taxable income is below the \$200,000 level.

The nature of small-business ownership also plays a role in the integration of corporate and personal income. In a family-run business, with the active participation of many family members, there is more flexibility and opportunity to split income and avoid the high corporate tax rate. The whole concept of income splitting in a small business is a major issue among family-run businesses, and is dealt with in greater detail later in this report.

There were a few areas of complexity noted about the SBD, such as when a shareholder is a non-resident and management services are rendered. Revenue Canada could argue that a bonus or management fee was not reasonable compensation for services provided and deny the corporate deduction.

In conclusion, the panel thought that the operation of the SBD worked well and did not materially add to compliance costs or complexity in the corporate tax system. Also, there did not appear to be a strong push among the panelists to have the SBD raised or modified.

4.3 Tax Planning

The first issue raised was about the attitude held by small businesses toward minimizing their taxes and the extent to which they were prepared to take steps to lower their tax burden.

The panel thought that much of the planning effort today is focussed on income splitting within a family. The first approach is to split the income as evenly as possible among as many family members, which has the effect of lowering the overall income tax rate. This happens in virtually every small business that is owned by an individual who is married, living common-law, or has dependants.

More sophisticated forms of planning may involve establishing trusts, gifting arrangements, and reorganization of corporate share capital. These present opportunities for income splitting, use of the capital gains provisions as well as estate planning. There may be significant up-front costs associated with these planning techniques, which raised the issue of how much money business owners are prepared to spend or invest to save tax dollars. The view was that for most, and especially younger taxpayers, any net savings are worth pursuing. The age issue is relevant because once a tax-saving vehicle is established, it requires only a minimal ongoing cost to sustain. Most accountants treat specialized tax-planning arrangements as separate engagements to enable their clients to measure the cost and benefits of a particular tax manoeuvre.

The growth in the more sophisticated forms of tax planning was explained in this manner: many of the long-standing tax advantages associated with being an entrepreneur – such as the deductibility of entertainment expenses, use of a home office, company vehicles – have been so substantially eroded that the appetite for tax savings simply finds another form. There is a belief in the small-business community which was shared by the panel, that since they are taking risks, making investments, providing jobs and have limited security of earnings, they are "entitled" to pay less tax than those enjoying the comfort of a regular salary in a less pressurized environment.

In discussions among panelists, it was clear that the tax advisor plays a substantial role in decisions made by clients to save tax. An aggressive and persuasive advisor could well have the majority of small-business clients in a "family trust" arrangement, where a more cautious advisor would make limited use of this vehicle.

4.4 Compliance

4.4.1 Unintentional Non-compliance

The panel reported many instances of non-compliance with the *Income Tax Act* simply out of ignorance of its provisions. Typical are items where an expense is either not deductible or only partially deductibles; examples include club dues, life insurance premiums, Christmas gifts, and meals and entertainment.

While in many cases non-compliance is unintentional, the panel viewed many of these items as immaterial to the overall tax burden, taking the view that business owners "could not be bothered" keeping informed of the details of the Act or the specifics of any transactions that required special tax treatment.

It was noted that the presence of a tax professional was a positive factor in promoting compliance with non or partially deductible expenses. Many of the required adjustments are only identified by the accountant in reviewing the year-end financial statements.

Small businesses are also very responsive to Revenue Canada audits. This means that once advised by Revenue Canada of the need to keep track of a particular item for adjustment on a tax return, the taxpayer usually becomes fully compliant from then on. In this regard, the panel thought that initial or periodic site visits to a new corporation would assist small businesses in being compliant with the law.

4.4.2 The Underground Economy

The panelists themselves appeared to have limited exposure to the underground economy. As professionals, they cannot be associated with anything they know or ought to know is false or misleading, and they argue, would disassociate themselves from clients who were clearly cheating on their taxes.

Panelists think the underground economy is much more pronounced among those who operate totally outside of the tax system, or who are unincorporated and complete their own tax information.

Panel members generally welcomed the initiatives undertaken by Revenue Canada to address the problem of the underground economy.

4.4.3 International Issues

While not an issue of large proportion, the panel reported that international transactions are becoming more significant even among small businesses. For non-resident shareholders, integration does not function because the dividend tax credit is unavailable. Efforts, therefore, are made to avoid the withholding tax to non-residents and to convert any payments into a deductible expense to the corporation. While not a big issue at this time, the provisions of the North American Free Trade Agreement (NAFTA) regarding mobility will likely make the non-resident issues more important in the years to come.

4.5 Research and Development Tax Credits

Because of the size of operations and level of investment, it is atypical for small businesses to have clearly defined research and development operations or the management information systems to readily generate an R&D claim. This does not mean, however, that R&D is not taking place.

The largest impediment to small business in making an R&D claim is compliance costs. Since all claims are carefully scrutinized by Revenue Canada, the application must provide substantial scientific authority to satisfy a government audit. The costs of preparing such a report for a small dollar-value claim are disproportionate, and in fact may exceed the value of the available tax credit. It usually falls to the owner of the small business to complete the application – and given the substantial and varied demands on their time, the R&D claim does not rate a high priority. The result is that many legitimate R&D claims are not being made by small business. Typically, small businesses would only organize themselves to submit a claim if their R&D expenditures were of a recurring nature.

The panel thought a special pre-screening process for R&D claims for small business by Revenue Canada would help them deal with the learning curve. Others noted that Revenue Canada was very helpful in processing R&D claims, offering seminars and genuinely demonstrating an interest in making the system work. On the other hand, there is a fear among small business that simply making an R&D claim would trigger a comprehensive audit.

The system works best if a small business has recurring R&D activity. This provides the incentive to establish the tracking systems, justifies the expenditures of the initial application and makes it worthwhile to endure the first audit. It was noted that once an application is accepted, subsequent claims tend to flow through the system more rapidly since, typically, the scientific merit of the claim has already been accepted.

Comparisons were made between a generalized tax incentive versus a direct granting process. Some expressed concern that moving to a discretionary granting process leads to abuse and favouritism – if not patronage.

There is a very interesting and growing development in the claiming of R&D credits. Companies have recently been formed to help business complete R&D claims on a contingency-fee basis. The fee is typically 50 to 60 percent of the tax credit received in the first year the claim is made. The R&D consultants come from two sources: from companies that sought out refunds under the former Manufacturer's Sales Tax, which have sought a new market for their services; and a few former Revenue Canada staff members who worked in an R&D section. These consultants have no affiliation with professional accounting firms. Their business approach begins with a cold-call and a no-risk contingency offer in which they assume responsibility for all preparation costs. As far as small-business owners are concerned, this constitutes "found money" and they are typically very receptive. The accountants who maintain an ongoing relationship with the small business say they are surprised that some of the claims submitted through the "contingency" firms are accepted by Revenue Canada. It appears that the quality and presentation of the application can often be as important as the underlying research.

Despite the compliance cost problems and concerns with firms operating on a contingency-fee basis that need to be scrutinized, the panel thought that existing policies foster the continuation of R&D investment.

4.6 Capital Acquisitions

The primary issue in this area is distinguishing between capital and operating expenditures.

For small business, the accounting and tax treatments almost always parallel each other. Consequently, the accounting concept of materiality, which does not have equal application in taxation, results in many expenditures being categorized as operating, whereas a strict interpretation of the *Income Tax Act* would suggest capital treatment.

Among small business, there is little appetite for capitalizing expenditures below \$1,000. When considering a statutory provision of this magnitude however, concern was expressed about the segmentation of a large acquisition into component parts to avoid capitalization, as could easily be done with a computer purchase. The panel, however, thought that was an unlikely outcome and generally favoured a more relaxed approach to the expensing of acquisitions.

The treatment of capital assets can be complex because of the large number of asset classes. The three different rates for building were cited as an example of unnecessary complexity. Combining asset categories was favoured by the panel.

Many companies, including small businesses, have acquired computers for use by their employees in their homes. While primarily intended for business use, it is obvious that there would be an element of personal use as well. Since this personal use component is difficult or impractical to measure, it is not to be treated as a taxable benefit to staff members.

Because a capital cost allowance (CCA) is recorded on a declining balance basis, an acquired asset is never completely written off. The panel considered whether there should be a limit at which an undepreciated capital cost could be totally written off – say \$1,000. While this proposition carried some favour, the annual recording of a CCA was not considered burdensome, and the proposal would not result in a meaningful or even noticeable reduction in compliance costs.

A larger issue was the recording of terminal losses. The panel felt that a terminal loss should be allowed when an asset category is substantially depleted. An example given was leasehold improvements where an amount was capitalized for the lease term plus one renewal period. In this example, the renewal was not exercised, and the company had only a very small interest in another leasehold. However, because the category was not void of assets, the company had to continue to write off leasehold costs over an additional five years when they were not occupying the facility.

4.7 Allocation of Income to Multiple Provinces

Most small businesses, due to the size of their operations, operate in only one province. As a result, allocating corporate income to multiple provinces is not an issue for the overwhelming number of small businesses in Canada.

The question of a permanent establishment may come into play when a small business has marketing or sales representation in another province. However, it is typical that the salesperson would have a contractual rather than employment relationship. Some panelists noted circumstances where sales agents were employees but worked from their homes, which were not considered to be permanent establishments.

It was reported that the mid-sized businesses with establishments in multiple provinces typically organized their accounting data – in particular on wages and revenues – by province. This made the computations of income allocation a relatively straightforward exercise.

4.8 Manufacturing and Processing Profits

Businesses in manufacturing and processing (M&P) industries enjoy a reduction in the corporate tax rate. This rate, however, does not apply to the first \$200,000 of income and, accordingly, has limited application in the small-business community.

The panel noted that qualifying businesses typically segment their accounting data to isolate manufacturing activity, therefore the determination of qualifying income does not impose a significant compliance burden. The issue for most of these businesses is to ensure that the maximum percentage of their earnings is attributable to M&P activity to help lessen their tax burden.

4.9 Non- or Partially Deductible Expenses

For most small businesses, the type of expenditures that are non- or partially deductible are for meals and entertainment, club dues, parking tickets, life insurance, and interest and penalties on account of corporate taxes. As was discussed earlier, the panel thought the compliance costs associated with these items were not particularly burdensome for three reasons. First, in many cases they are not material to the business and are not adjusted for. Second, when an adjustment is made for meals, it is typically a "ball-park" estimate that does not involve a significant investment of time. Third, many of these adjustments are made by the accountant at year-end when the accounting and tax data are readily accessible.

Of the three expenses noted above, the inability to deduct interest costs associated with corporate taxes was the most significant irritant. While recognizing why government would want to employ every effort to collect taxes, the cost to small businesses is particularly high because they do not have the sophistication to manage their instalments properly, and are more likely to be assessed interest costs.

There are other non- or partially deductible expenses that affect only a small number of businesses. The panel noted that legal fees associated with a reorganization became a concern of small business when many undertook to crystallize their capital-gains exemption. Some small businesses in Toronto were assessed for deducting "foreign advertising" in a publication printed in Chinese – for the local community – but which included foreign content. In this case, the panel

thought Revenue Canada was overzealous in tracking down what was mostly small businesses for small sums, involving an issue where it was unreasonable to think they would have known of the tax consequences of their action.

The panel also noted that Revenue Canada appears quick to threaten to assess gross negligence penalties under Section 163(2) during the audit process, when the intent of the party was not a deliberate avoidance of tax. It was thought that the threat of these penalties was being "thrown around" too readily and was being used as a scare tactic by Revenue Canada.

One complication for corporations in Quebec is the limit that meal and entertainment expenses can only be deducted to the extent they are less than 1 percent of gross revenue. It was noted that many businesses in Quebec are actively finding ways to circumvent this provision, particularly those where substantial entertaining is an industry norm.

4.10 Automobiles

No issue raised as much unanimity and frustration as the provisions of the Act pertaining to company-owned automobiles. The clear message is that the rules are so complicated that no one – not the business operator, the accountant or the Revenue Canada auditor – is able to properly apply and enforce the law. The law in this case refers both to the *Income Tax Act* (standby charge) and the *Excise Act* (for the Goods and Services Tax – GST). An attempt to make a proper interpretation, precise calculations (such as kilometre logs) and explore alternative treatments offered in law is very costly and typically beyond the financial resources or technical ability of small business.

To cope with the current situation, many small-business owners are no longer acquiring their cars through the business. They find it much simpler to buy their cars personally and charge a "reasonable" allowance to the company for their use. The panel thought this applied to about 90 percent of the cars being used by small-business operators.

Some business operators with company cars do not make the taxable-benefit computations suggesting it is less costly to have Revenue Canada make the calculations in an audit. Further, it is thought that "giving" Revenue Canada a clear violation to discover will help them achieve their audit "recovery quota," making them less likely to delve into other areas.

Independent accountants are frustrated with the law because they know it is not being observed, and they cannot persuade their clients to take the time to maintain detailed records or to pay them the necessary fee to make accurate calculations.

Because the large majority of small businesses have now reorganized themselves to "get out of the car business," the panel thought the complexity problem was becoming academic.

4.11 Non-harmonized Provinces

Separate corporate tax administrations are maintained in Quebec, Ontario and Alberta. This poses an additional compliance burden on businesses with operations in these provinces simply because of the need to complete an additional corporate income tax return and send a copy of the federal return to the province.

Even though the returns and system are separate, there is considerable information sharing between the federal and provincial return. For these reasons, the panel thought the additional incremental cost of the second return was likely 50 percent of the cost of completing the federal return.

The panel did not see any material benefit to the provinces that maintain separate administrations, particularly since the differences between federal and provincial tax policy were described more as a "nuisance" than substantive and meaningful.

Many panelists reported the frustration of having to deal with two sets of auditors on the same issues. Tax planning is complicated because of different CCA rates that could affect loss carry-forwards.

Capital tax is growing in importance and the panel thought it could become a more important issue for small business. The accountants noted that some larger businesses are already taking steps to shift assets to provinces with low capital tax rates.

Finally, having two administrations and two tax accounts complicated the instalment process. Business owners frequently make mistakes about the amounts of their instalments and to whom they should be sent. Governments often make mistakes about the tax year in which these instalments should be credited. In one instance, it was reported that cheques payable to the province of Ontario were sent to the federal government by mistake – and then cashed. Having two administrations simply adds a burden to an already complex situation.

4.12 Tax Instalments

While there are minimum limits under which instalments are not required (\$1,000 federal; \$2,000 in Ontario), most small businesses are required to make income tax instalments.

The first issue that arose is why the government would make instalments a monthly requirement. Quarterly was thought to be more appropriate, particularly since it coincides with the GST payment for most businesses. As an alternative, the government could suggest quarterly payments – in advance – advising that a full interest credit would be granted for payments made in advance of the due date.

A complication for determining instalments is that tax returns are not due until six months after the end of the fiscal year – yet the proper instalment payments must begin much earlier. This means that business owners could be fully compliant with submitting tax returns yet receive non-deductible interest charges if their instalments have not met the prescribed amounts.

Small-business owners do not have the sophistication to properly manage their instalments. For example, many do not realize that in a year of low profitability their instalments can be reduced to meet their expected tax liability. Since their accounting systems may not be current or precise, they are more inclined to remit instalments based on the previous year's taxes, even though they could and should remit much less.

Some panelists thought the system would be simpler if small businesses sent in a series of post-dated cheques to cover their instalments. Others were concerned about Revenue Canada misapplying the instalments – either losing the cheques, applying the cheque to the wrong tax account or taking the cheques to cover other taxes, some of which may be in dispute. In this regard, the panel warned of a potential accounting "nightmare" if small businesses were ever asked or required to submit a single cheque for payment of a variety of tax accounts – e.g. GST, payroll deductions and corporate tax.

Many small businesses consider the government as a source of financing and do not make tax instalments. The panel thought this approach would change if small businesses realized the after-tax effective interest rate that they are paying on deficient instalments.

4.13 Filing Deadlines

For most businesses, the corporate tax return is due six months after the end of the fiscal year-end, while any tax owing is due three months after the year-end. The panel generally thought that these deadlines were fair and reasonable.

Despite the reasonableness of the policy, it is inevitable that many businesses will not meet the filing deadline. The panel reported that penalties can be avoided by filing a return with estimated data while providing the precise amounts through an amended return to be filed at a later date.

It was noted that there were advantages to filing the return as late as possible, even though it might be ready as early as one month after the year end. Delaying the return provides some flexibility to change the statements (i.e. bonus accrual) to take into account changing circumstances. Since there are restrictions on what can be accomplished through an amended return, many businesses routinely submit their returns "at the deadline" to provide a wider and more flexible window in which to make changes.

The panel much prefers the Canadian approach with firm deadlines to the U.S. model with frequent filing extensions.

It was also noted that the current system, along with the recent changes regarding year-ends for unincorporated businesses, has concentrated and compressed much of their professional work in a shorter time frame. Some accounting firms have taken to offering lower billing rates to corporate clients who do not have calendar year-ends.

4.14 Penalties for Late Filing or Payment

While the filing deadlines were judged to be fair and reasonable, the application of penalties appeared to be particularly punitive toward small business.

For example, some penalties (such as those for late T-4s) are a flat charge that is assessed regardless of the number of staff or the tax remitted. This obviously bears more heavily on small businesses. It was noted that Revenue Canada frequently shows some flexibility and judgment on this issue, which is appreciated by small business.

There appears to be some unwritten "grace" provisions for the late filing or paying of taxes. Some thought these policies should be clearly identified to ensure fair and consistent application; others thought the grace policies would then be abused to the limits of what was available.

Some noted that there should be no penalties for non-filing of returns that have no real tax consequence, such as the issuance of T-5s for intercorporate dividends.

4.15 Inactive Corporations

As noted previously, the preparation of any corporate tax return – even those with no activity – attracts a fee of between \$200 and \$500. The filing of a complete return, it was thought, must also be a costly exercise for Revenue Canada to process.

The whole process for filing tax returns for inactive companies can be substantially streamlined. There should be no need for a return, perhaps a letter or tick-off box could suffice.

Problems were also noted in moving a corporation from an inactive to a dissolved status. It was reported that governments have requested articles of dissolution as proof that the company will not resume activity. The reality is, that when a company is "dead," its owner is loath to spend the additional time and money to obtain what is in effect a death certificate. This simply will not happen.

4.16 Revenue Canada

The panel gave high marks to Revenue Canada as an organization that is professional, flexible, and generally exhibited good judgment. The highest praise was given to senior officials and rulings officers who had the most knowledge about the tax system. It is this group that accounting professionals deal with most often if problems are encountered with junior-level auditors.

The cost of an audit was considered to be an unavoidable irritant – although unnecessarily frustrating when audits for different governments and different taxes are not co-ordinated.

The "fairness package" has gone a long way in making Revenue Canada a more "approachable" organization. However, there appears to be a difference in attitude regarding the fairness issue between Revenue Canada Taxation and Revenue Canada Excise (GST). The GST auditors appear to exercise less judgment and show less flexibility than their Taxation colleagues. It is obvious which approach engenders more support, and, ultimately, compliance.

One specific irritant was the computer-generated demands for information from Revenue Canada. The panel reported that in many cases, if more judgment were exercised, the requests would never have been sent – and their clients would not have had to spend the time and money to prepare and submit a response. One panel member reported receiving a monthly request for payroll information for the past eight years although the company has long since been inactive.

4.17 Other Issues

In a free-ranging discussion at the conclusion of the day, panelists raised a number of other issues and concerns, which are reported in this section.

In contrasting the Canadian and U.S. systems the issue of "preparer penalties" was raised. The United States has provisions in its legislation that can make the tax preparer financially responsible if a return is inaccurate. The panelists strongly oppose this approach. First, accountants in Canada are held to high ethical professional standards that prohibit them from being associated with anything that is false or misleading. The panelists observed they are far more fearful of a professional conduct committee than the prospect of a fine from Revenue Canada. Second, the evidence suggests that professionals actually help to make the tax system work as it was designed. Finally, there is a concern that preparer penalties would drive up compliance costs, particularly for small business.

The panel argued that the capital-gains exemption and deemed-dividend provisions of Section 84.1 unfairly prejudice against fair-market value buy-out arrangements between related individuals. That is, a common arrangement for unrelated individuals is to buy shares through a holding company. For related individuals, the capital gains exemption cannot be used in this process, thereby greatly increasing the after-tax cost of a business transaction at fair-market value terms between related individuals.

Uncertainty and the frequency of changes to the tax system are two issues that raise compliance costs. For example, because of wide speculation about modifications to the capital-gains exemption for small business, many businesses spent thousands of dollars reorganizing their affairs to "crystallize" their exemption. Had the government made a clear pronouncement before the 1996 Budget that these provisions would not be modified, then much of this costly activity would have been avoided.

The panel noted that small-business compliance costs not appear to be given sufficient consideration when the tax system is being changed. It was thought that greater consultation with those who work exclusively with small business would avoid many problems. The recent change regarding calendar year-ends for unincorporated businesses was cited as an example where consultation would have been helpful.

Tax policy by press release and the retroactive provisions of tax changes were widely criticized by tax specialists. These actions tend to undermine confidence in the system and results in a higher compliance-cost burden as businesses seek protection from retroactive provisions.

5. Strengths and Limitations of the Research

The findings of this research have the following limitations:

1. There was no direct contact with individual small businesses (other than the panelists who operate businesses of their own) and therefore findings are based on the opinions of others regarding the target population. There is no certainty that the panel fully represented the target population.
2. The number of panelists was small (six) and did not represent all areas of Canada.
3. This research report does not include a literature review and an analysis of any statistical data that is available from Revenue Canada and Statistics Canada.
4. Not all incorporated small businesses deal with a professional accountant. These businesses are not directly represented by the panel, although there is nothing to suggest their concerns would be substantially different from those raised in this report.

The strengths of the research can be described as follows:

1. The use of a panel of knowledgeable accountants who specialize in small-business issues provided a forum for an in-depth discussion about the problems experienced by small business, the source and impact of these problems, and possible solutions.
2. The pre-and post-panel review of the report provides additional support to the views and recommendations contained therein.

6. Areas for Further Study

This research focussed on compliance issues related to the corporate income tax system for small business in Canada. Other relevant and important issues for further research include the following:

1. The panel provided a very useful methodology to generate important insights into the primary research questions. To add confidence to the findings, to reveal other areas of concern and to address emerging issues, a regular program of consultation with small-business specialists could be instituted. It would be useful to have as many as 10 participants per session.
2. Small business has compliance concerns with the entire tax and regulatory burden. Studies of this sort could be extended to cover compliance of the Canada Pension Plan, Employment Insurance, personal tax deductions at source, capital tax, T-4 Summaries and Supplementaries, GST and requests for information from Statistics Canada.

7. Research Team

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Appendix A: Agenda for Panel Discussion

9:00 - 9:15	Introduction
9:15 - 9:25	Objectives of the Technical Committee – <i>John Sargent</i> Mandate of the Committee Work to date Reporting and follow-up
9:25 - 9:30	The Task of the Small Business Panel – <i>Bob Plamondon</i> Impact of the Corporate Income Tax System on Small Business Focus on problems that are unique to small business Format for the day Represent yourselves, your clients, the business community as a whole Confidentiality Report from the panel
9:30 - 10:15	Issues: Corporate tax return Completed by How – computer software; staff level required Incremental costs – by element (include tax planning)
10:15 - 10:30	Coffee break
10:30 - 12:00	Issues: (cont'd) Integration Issues re the \$200,000 small-business limit (planning, investment, growth) Salary-dividend mix Compliance Unintentional non compliance Tax avoidance Knowledge of the system
12:00 - 1:00	Lunch
1:00 - 2:30	Research and development tax credits – use and compliance costs Capital acquisitions: Compliance – complexity – alternatives Allocation of income to multiple provinces Manufacturing and processing profits Non- or partially deductible expenses Non-harmonized provinces (separate administrations)

2:30 - 2:45	Coffee break
2:45 - 4:30	Tax installments Filing deadlines Penalties for late filing Inactive corporations Revenue Canada Specific industry concerns Positive comments about the system Other
4:30	Wrap-up

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

Mr. Robert Brown
Price Waterhouse
Toronto, Ontario

Mr. James Cowan
Stewart McKelvey Stirling Scales
Halifax, Nova Scotia

Mr. Wilfrid Lefebvre
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Montreal, Quebec

Professor Jack Mintz (Chair)
Faculty of Management,
University of Toronto (on leave)
Clifford Clark Visiting Economist
Department of Finance
Ottawa, Ontario

Mr. Norm Promislow
Buchwald Asper Gallagher Henteleff
Winnipeg, Manitoba

The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

Distribution Centre
Department of Finance
300 Laurier Avenue West
Ottawa, Ontario K1A 0G5
Telephone: (613) 995-2855
Facsimile: (613) 996-0518

They are also available on the Internet at <http://www.fin.gc.ca/>

Technical Committee on Business Taxation Completed Research Studies

- ☐ **WORKING PAPER 96-1**
Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States
Brian Arnold (Goodman Phillips & Vineberg)
Jinyan Li and *David Sandler* (University of Western Ontario)
- ☐ **WORKING PAPER 96-2**
Why Tax Corporations
Richard Bird (University of Toronto)
- ☐ **WORKING PAPER 96-3**
Tax Policy and Job Creation: Specific Employment Incentive Programs
Ben Cherniavsky (Technical Committee Research Analyst)
- ☐ **WORKING PAPER 96-4**
The Effects of Taxation on U.S. Multinationals and Their Canadian Affiliates
Jason Cummins (New York University)
- ☐ **WORKING PAPER 96-5**
The Integration of Corporate and Personal Taxes in Europe: The Role of Minimum Taxes on Dividend Payments
Michael Devereux (Keele University)
- ☐ **WORKING PAPER 96-6**
International Implications of U.S. Business Tax Reform
Andrew Lyon (University of Maryland)
- ☐ **WORKING PAPER 96-7**
The Economic Effects of Dividend Taxation
Ken McKenzie (University of Calgary)
Aileen Thompson (Carleton University)
- ☐ **WORKING PAPER 96-8**
Capital Tax Issues
Peter McQuillan and *Cal Cochrane* (KPMG Toronto)
- ☒ **WORKING PAPER 96-9**
Compliance Issues: Small Business and the Corporate Income Tax System
Robert Plamondon (Ottawa)
- ☐ **WORKING PAPER 96-10**
Study on Transfer Pricing
Robert Turner (Ernst & Young, Toronto)
- ☐ **WORKING PAPER 96-11**
The Interaction of Federal and Provincial Taxes on Businesses
Marianne Vigneault (Bishop's University)
Robin Boadway (Queen's University)
- ☐ **WORKING PAPER 96-12**
Taxation of Inbound Investment
Gordon Williamson (Arthur Andersen, Toronto)

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Government
Publications

Study on Transfer Pricing

Robert Turner, C.A.
Ernst & Young, Toronto

December 1996

WORKING PAPER 96-10

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

Study on Transfer Pricing

Robert Turner, C.A.
Ernst & Young, Toronto

December 1996

WORKING PAPER 96-10

Prepared for the
Technical Committee on Business Taxation

Comments on the working papers are invited and may be sent to:

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Abstract

Changes in manufacturing processes, increased data communication and networking, and the increasing role of services and valuable intangibles in the economy as well as the creation of trading zones (such as the European Community) enable businesses to operate more effectively transnationally. As a result, related party trade is growing both in volume and in scope. The implications of intra-company transfer pricing policies for government revenues can be significant as such prices can affect customs, excise and sales taxes as well as income taxes paid in relevant countries.

This paper has been prepared to provide the Committee with an overview of transfer pricing procedures and policies and the international environment governing such practices. The results of two recent surveys of taxpayers provide an overview of the taxpayer's perspective on transfer pricing issues. The paper summarizes recent transfer pricing guidelines issued by the Organisation for Economic Co-operation and Development, provides an overview of the tax rules applying in various countries to related party transactions and compares these approaches to those found in Canada. The study offers, for the Committee's consideration, possible changes or alternative approaches for the Canadian tax system having regard to the Committee's stated objectives of:

- promoting job creation and economic growth,
- protecting the Canadian tax base,
- simplification, and
- enhancing fairness by ensuring that all businesses share the cost of providing government services.

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Introduction

Canada, a member of the G-7 (Group of Seven leading industrial countries), is often identified as the largest trading partner of the United States both for imports and exports. What is often left unsaid is that most of this trade is between related parties.¹ Recently obtained information from Revenue Canada indicates that in 1993, related-party transactions of \$248 billion were reported to it, \$166 billion of which was between related parties in Canada and the United States (approximately five times the volume for the second-largest country, the United Kingdom).² In a country that raises less than \$20 billion in tax from corporations, the potential impact on tax revenues of these related-party transactions is significant.

As noted by the Organisation for Economic Co-operation and Development (OECD), "the role of multinational enterprises (MNEs) in world trade has increased dramatically over the last 20 years."³ Changes in manufacturing processes, increased data communication and networking, and the increasing role of services and valuable intangibles in the economy as well as the creation of trading zones (such as the European Union) enable businesses to operate more effectively transnationally. As a result, related-party trade is growing both in volume and in scope.⁴

The OECD notes: "One of the most difficult issues that has arisen is the establishment for tax purposes of appropriate transfer prices. Transfer prices are the prices at which an enterprise transfers physical goods and intangible property or provides services to associated enterprises. Transfer prices are significant for both taxpayers and tax administrations because they determine in large part the income and expenses, and therefore taxable profits, of associated enterprises in different tax jurisdictions."⁵

"When transfer pricing does not reflect market forces and the arm's-length principle, the tax liabilities of the associated enterprises and the tax revenues of the host countries could be distorted."⁶

It is therefore not surprising that, with increasing globalization of trade and with changes in the nature of business functions that need to be carried out to compete successfully, tax administrations are increasingly concerned about the impact of transfer pricing on their tax base. Similarly, transfer pricing and the increasing attention it is getting from tax authorities in various countries around the world is of pressing concern to MNEs. However, its relevance is not

¹ This phenomenon is consistent with trade between other countries. See, for example, *Global Warming, Journal of Accountancy – International Edition*, Dodsworth and Hobster, April 1996, wherein it was noted that more than one half of world trade takes place between related parties.

² *Analysis – T-106 Data, 1991-1993*, obtained from Revenue Canada under the *Access to Information Act*. Form T-106 is used to report transactions between related corporations. In a similar analysis for 1990-91, Revenue Canada estimated that there was a 20% shortfall in the number of T-106 filings.

³ *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*, OECD, Paris, 1995, p. P-1.

⁴ For example, the opening up of the Eastern Bloc as well as parts of the Far East has created new trading opportunities for MNEs and has changed trading patterns.

⁵ OECD, *supra*, P-3,4.

⁶ OECD, *supra*, I-1, para. 1.3.

restricted only to billion-dollar MNEs; transfer pricing affects every entity doing business in more than one country. This includes many smaller, often privately held companies that operate in Canada and the United States. For all companies, particularly smaller ones, it is important that transfer pricing legislation and related administrative policies be clearly understood and as easy as possible to comply with.

The focus on transfer pricing is being led by the U.S. tax authority, the Internal Revenue Service†(IRS), with the support of the U.S. Congress and other U.S. political leaders. For the most part, other countries around the world, including members of the OECD, have reacted defensively to U.S. initiatives in this area. While most countries, including Canada, have chosen to react administratively, a small number of countries, including France, Australia and Mexico, have enacted, or are considering, tougher legislation to deal with intercompany transfer pricing matters.

In the United States, the concern about transfer-pricing manipulation has led to detailed rules, and has resulted in arguably onerous compliance and documentation rules backed up by fairly hefty tax penalties. These actions, in particular the penalty provisions, have the attention of companies dealing with the United States.⁷

International tax authorities have also responded to the U.S. initiatives, generally by increased scrutiny of MNE related-party transactions. The OECD released major revisions in 1995 to its 1979 Transfer Pricing and Multinational Enterprises guidelines; further updates were issued in 1996. Australia has announced new compliance requirements and France and Japan have announced transfer-pricing initiatives as well.

This paper summarizes the tax rules that apply in various countries to related party transactions and compares these approaches to those found in Canada. It also identifies possible changes or alternative approaches that may be considered for the Canadian tax system regarding the following objectives:

- promoting job creation and economic growth;
- protecting the Canadian tax base;
- simplification; and
- enhancing fairness by ensuring that all businesses share the cost of providing government services.

⁷ In a 1996 Ernst & Young survey of over 200 MNEs with operations in the United States, 89% of respondents indicated that concern about U.S. penalties had caused them to document their transfer-pricing policies in a manner consistent with the IRS regulations.

Executive summary

Impact of transfer-pricing issues

- Transfer-pricing administration and enforcement policies may give increase to the threat of double taxation, and such policies may become an impediment to the free flow of goods, services or capital, thereby impeding economic growth and job creation.⁸
- The existence of penalty or documentation provisions, combined with aggressive transfer-pricing audit procedures by foreign jurisdictions, poses a threat to the Canadian tax base as companies may seek to over-comply with tax rules in such foreign jurisdictions.
- In the interests of flexibility and simplicity, Canada is, at present, best served by general, rather than overly detailed, tax provisions relating to transfer-pricing methods and practices.

Basis for determining non-arm's-length transaction prices

- Canada should continue to apply the transactional methods endorsed by the OECD when evaluating intercompany transfer pricing used between related parties.
- The general and flexible "reasonable in the circumstances" criterion of section†69 of the *Income Tax Act* does not require amendment.

Administrative policies and guidelines

- *Information Circular IC 87-2* should be updated and re-issued as soon as possible.⁹ The Circular should be more comprehensive in scope and should contain more extensive examples. As well, the circular should be more specific in identifying the administrative approaches applied by Revenue Canada in evaluating the transfer pricing methods used by taxpayers.
- Customs and Goods and Services Tax (GST) principles should be more consistent with the Income Tax approach to resolving transfer pricing disputes.¹⁰
- An executive interchange program between the department and the private sector should be initiated, where appropriate, to encourage the sharing of expertise.
- Revenue Canada should provide guidance on how it intends to use T-106 and tax return reporting in its transfer-pricing enforcement and review.

⁸ When the "threat" of double taxation does become a reality, taxpayers may use the various problem-resolution channels available to them, including the competent authority process under the mutual agreement provision found in our various tax treaties.

⁹ IC 87-2 was released in 1987. The circular is presently being revised to reflect the department's current views on transfer pricing, taking into account the recent recommendations of the OECD.

¹⁰ The *Income Tax Act* (Canada) and the *Customs and Excise Tax Acts* are separate and distinct legislation, enacted to satisfy different and particular needs. As well, different international agreements and processes may apply to these differing types of taxes and may restrict Revenue Canada's ability to achieve this consistency.

Examination practices

- Revenue Canada should continue the specialized training and status of personnel involved in transfer-pricing audits. Involvement of these trained specialists should be mandatory in all transfer-pricing reviews.
- Transfer-pricing specialist personnel in the Tax Service Office (TSO) should include legal and economic support.
- Until more experience is gained by TSO personnel, proposed transfer-pricing reassessments should be referred to the International Tax Directorate in Ottawa to ensure consistency across the country. Taxpayers should be allowed to participate in the referral process.

Burden of proof

- Taxpayers should be expected to be able to support the reasonability of related-party transfer pricing through contemporaneous documentation. The extent of the documentation needed will vary from case to case, but will likely need not be as extensive as that required for U.S. tax purposes.

Administration, penalties and compliance requirements

- Given the need to balance fairness and simplicity against the pressures of detailed information reporting and the penalties applied under other tax regimes, and given the need to balance flexibility and uncertain rules against inflexibility and very detailed rules, Canada is well served by less-specific rules than those followed in the United States.
- Revenue Canada's initiatives in increasing its review of related-party transactions are warranted. As well, Revenue Canada's continuing advocacy of increased use of simultaneous examinations is desirable.¹¹ Real-time audits of transfer-pricing transactions should be considered.
- Canada should introduce specific penalties for under reporting of income due to transfer-pricing manipulation. Such penalties should differentiate between taxpayers who act in reasonable good faith (as evidenced by contemporaneous documentation) and those who do not.

The advance-pricing agreement program

- The advance-pricing agreement (APA) program is vital to fair and open administration of the tax system and to keep our system competitive and fair.

¹¹ It is understood that Revenue Canada is actively promoting the simultaneous-audit program with our treaty partners.

- The APA program requires additional resources and a "fast-track" APA or informal APA procedure should be made available for smaller companies.¹²

Competent Authority

- Canadian taxpayers should be kept fully aware of progress of Competent Authority procedures affecting them.¹³

Background

This section of the report provides general background on the use and implications of transfer-pricing policies and the impact that transfer pricing has on the reported profits of enterprises operating internationally. This section describes common transfer-pricing procedures and outlines the transfer-pricing regimes found in various countries including Canada, the United States, Australia and Japan.¹⁴ This section of the report also describes the findings of surveys conducted by Ernst & Young during 1995 and 1996 on transfer-pricing issues.

What is transfer pricing?

Multinational enterprises (MNEs) carry on business in more than one country either directly, through branches, or indirectly through subsidiaries. Whatever the form, the activities of an MNE's individual operating units are rarely completely self-sustaining or independent with the result that transactions take place between these units. The price at which goods, services or capital are exchanged between the related parties, the transfer price is determined by the transfer-pricing policies used within the related group.

The transfer price received or charged for goods, services or financing will be included in the income of supplier, and the corresponding cost or payments will be deducted from the profits of the legal entity benefiting from the transaction and making the payments.¹⁵ Often the amount of these charges represents one of the largest inclusions or deductions in computing the income of one or both of the related parties.

¹² Currently Revenue Canada has accepted two smaller, fast-track APAs on a trial basis to determine how its program might be adapted to meet the needs of smaller corporations in the area of transfer pricing.

¹³ In May 1995, the International Tax Directorate of Revenue Canada released an update to its *Information Circular IC 71-17R4* on the Canadian Competent Authority process. The revisions reflected the need for greater co-operation and involvement by affected taxpayers in the process.

¹⁴ The tax administrations of these countries have formed the Pacific Association of Tax Administrators (PATA) to promote co-operation and administrative consistency among them. In 1995, PATA members released common guidelines relating to bilateral and multilateral APAs.

¹⁵ The governing tax law of the respective country of the payer and the payee may affect the timing and or amount of the income inclusion or deduction for the intercompany charge.

From a business perspective, there are many dimensions to deciding what to charge for the intercompany exchange of goods or services. Compensation and performance measurement may push in one direction; the demand for simplicity may push in another; and tax considerations may push in a third. Other factors may come into play as well. Governments, through their tax systems, have a vested interest in ensuring that appropriate profits are reported in their jurisdiction. Government concerns are heightened when one of the parties to a related-party transaction is subject to tax at a rate that is considerably less than that applying in the other related party's country. In addition to tax-rate pressures, other government pressures can be brought to bear on the transfer-pricing decision, including heavy penalties or restrictive measures dealing with related-party transactions.

Are there accepted methods for transfer pricing?

There is general agreement among governments, often by way of bilateral tax treaties, that transfer pricing between related parties should adhere to an arm's-length standard; that is, that related companies should carry out their transactions between themselves on the same basis as would have applied had they been dealing at arm's-length.¹⁶ Through the OECD, 25 of the world's leading industrialized countries, including Canada, have stated their acceptance of the arm's-length standard for setting inter-company transfer prices and have set out guidelines for methods that should be used in adhering to the standard.¹⁷

Notwithstanding this agreement on the arm's-length standard, various countries have different ways of interpreting the standard and applying the generally accepted methods.¹⁸ It is these differences that cause uncertainty and introduce tax risk to the equation. The MNE is then left to balance the conflicting interpretations in a manner that exposes it to the least amount of financial risk. This determination is affected by the geographic source of the greatest volume of transactions (e.g. a U.S.-based MNE will likely have more related-party transactions to be reported in the U.S. than in any other single country, and therefore its tax risk is likely to be more significant in the U.S. than in any other country). It is also affected by the existence of tax and other financial penalties, as noted elsewhere in this paper.

The attitude of MNEs to the transfer-pricing policies and administrative procedures developed by various governments has been the subject of two Ernst & Young surveys in the past year.¹⁹

¹⁶ See for example Article IX of the *Convention on Income Taxes 1980* (as amended) between Canada-United States of America wherein it is provided that an arm's-length standard is to apply between related parties.

¹⁷ OECD, *supra*, Chapter I. The accepted standards are based on transactional methods and are: comparable uncontrolled price (CUP), comparable uncontrolled transaction (CUT), resale price minus method (RSM), cost plus, transactional net margin method (TNMM), and profit split method (PSM).

¹⁸ Compare, for example, the U.S. Internal Revenue Code requirement of an arm's-length result and the Canadian *Income Tax Act's* standard of an amount that would be reasonable in the circumstances between parties dealing at arm's length. The U.S. standard has led to a "bottom-line approach" that may require post-transaction adjustment, whereas Canada takes at a transaction-by-transaction approach.

¹⁹ There have been other surveys carried out by other parties, for example, a survey by Charles River & Associates in the United States. Such survey results have been fairly consistent with those of the Ernst & Young surveys described in this paper.

Ernst & Young global survey of multinational corporations – 1995²⁰

In 1995, Ernst & Young International arranged for an independent survey of multinational companies operating in eight countries, including Canada, the United States, the United Kingdom and Japan.²¹ The survey also asked the tax authorities in the various surveyed countries to comment on various aspects of the transfer-pricing developments and the use of advance pricing agreements (APAs).²²

The results of this survey clearly establish the following:

- transfer pricing is vitally important to MNEs in all surveyed countries;
- the more MNEs are subject to tax audit on transfer-pricing methods†(TPMs), the more they take the reactions of tax authorities into account when establishing or revising TPMs; and
- most MNEs are familiar with the concept of APAs, and expect their use to increase in the future.

In the survey 80 percent of MNEs indicated that transfer pricing was the most important international tax issue facing them today. Approximately one half of all respondents said it was the most pressing tax issue of any kind for them. Although Canadian respondents were consistent with the rest of the world on these questions, they were the most likely to face queries at home on their transfer pricing.²³ Overall 83 percent of respondents indicated that their TPMs had attracted tax authority review.

When asked about audits of their foreign subsidiaries, MNEs uniformly identified the United States as most active in conducting transfer-pricing audits; surprisingly, Revenue Canada was well down the list.²⁴

The survey also asked how likely companies were to take the possibility of a revenue authority enquiry into account when setting a TPM. Not surprisingly, given the U.S. regulations and penalty regime, over 90 percent of U.S. MNEs indicated that they would do so to some or to a great extent. It was a little surprising to find that Canadian and UK MNEs closely followed the U.S. in this regard.²⁵ Even in Germany and France, where the tax authorities are less aggressive in reviewing TPMs, just over 70 percent of respondents considered the prospect of review significant enough to take it into account in setting TPMs.

²⁰ Transfer Pricing: Risk Reduction and Advance Pricing Agreements, Ernst & Young, 1995.

²¹ In this 1995 survey, 25 companies were surveyed in each of Australia, Canada, France, Germany, the Netherlands and the U.K.; 50 U.S. and 10 Japanese companies were surveyed.

²² The Canadian, German, Dutch and U.K. authorities commented on the survey results or on the APA process.

²³ Over 90% of Canadian MNE respondents have faced queries from Revenue Canada; 48% of the Canadian respondents were involved in Revenue Canada reviews of their transfer pricing at the time of the survey.

²⁴ 36% of Canadian respondents indicated that they were facing a review by a foreign tax authority. 34% of all MNEs that have faced an enquiry in a subsidiary country report that they are currently under review by the IRS, and 34% report they have been reviewed by the IRS in the past; for Canada, the figures are 12% and 11% respectively.

²⁵ 88% and 84% respectively.

Larger MNEs treated the risk more seriously than smaller MNEs, and companies that had experienced revenue enquiries in the past were more likely to take the risk into account than were companies that had not faced such inquiries.²⁶

Approximately one third of respondents claimed that they set up a defensible policy with adequate supporting documentation. Almost one third adapted their TPMs to the practice of local tax authorities. Only one quarter stated that they use an arm's-length market-based approach. A number of MNEs also indicated that they tailor TPMs to the more conservative approach of certain countries, most notably the United States.²⁷ The particular mention of U.S. rules seems to support the fear of other countries, including Canada, that U.S. rules and penalty provisions have caused MNEs to skew their TPMs to "over comply" with the U.S. rules.²⁸

MNEs were asked to identify the types of transactions that come under review. They responded in the following order:

- charges for administrative or management services;
- royalties and other charges for intangibles;
- transfer pricing for goods for resale;
- financing transactions; and
- charges for technical services.

Clearly, administrative and management charges are the easiest for the revenue authorities to trace and audit. For these charges, the three-part audit determination of existence, benefit and no-duplication accompanied by a "no-markup" approach make it easy for the auditor to assess reasonability of the charges.²⁹

Transfer pricing for goods or intangibles is somewhat more difficult to evaluate and is open to more subjective judgment in many cases. Nonetheless, various unpublished Canadian surveys indicate that Revenue Canada auditors are increasingly willing to look at goods and royalties when auditing international transactions. In the United States, while interest and royalties are the most frequently adjusted transactions, the dollar adjustments for transfers of goods are larger.³⁰

²⁶ 46% of larger MNEs said they considered the possibility of review by revenue authorities to a great extent when setting a TPM; only 26% of smaller companies would do so to a great extent. Only 17% of companies that had not been subjected to tax authority review of their TPM considered the possibility of an investigation when setting a TPM.

²⁷ 7% of respondents tailored their TPM to U.S. rules. Other respondents cited Germany, Canada and Japan.

²⁸ This concern is reinforced by the 1996 survey of documentation practices, *infra*. On the other hand, a number of companies, concerned about the exposure to penalties, have applied for bilateral APAs.

²⁹ Many Revenue Canada auditors state that these are "easy marks" for some type of adjustment, as companies often get lazy in backing up these charges.

³⁰ The above comments reflect information obtained from the IRS.

The survey also covered competent authority procedures. Respondents were generally dissatisfied with the competent authority process (52 percent in Canada) generally due to the amount of time involved (many years) and the uncertainty as to the outcome of the process. To some extent this was mirrored by comments on the APA process. Despite the current lack of use of APAs by Canadian-based MNEs, almost all of them were familiar with the APA concept and some 80 percent of them expected the use of APAs to increase in the future.³¹

Ernst & Young survey of transfer-pricing documentation - 1996³²

Recognizing the importance of transfer pricing and the growing compliance burden for documenting transfer-pricing policies, particularly for U.S. purposes, Ernst & Young sought responses from MNEs on these documentation issues. Responses were received from over 200 MNEs, 90 percent of which were based in the United States. As was the case for the 1995 survey, transfer pricing was identified as the major tax concern facing MNEs.

Almost 90 percent of the respondents indicated that the reasons for documenting their transfer-pricing policies included the objective of minimizing exposure to U.S. penalties. Almost two thirds of them indicated that they documented the facts in anticipation of an IRS audit and half of them were seeking an evaluation of their transfer-pricing exposure. Slightly more than 40 percent of the respondents were attempting to substantiate their methodology for non-U.S. purposes. Almost three quarters of the respondents indicated that their documentation included all or most of the documentation required under the U.S. transfer-pricing regulations.³³

The respondents made it clear that they were less concerned about non-U.S. documentation requirements: one third indicated that they would not prepare documentation for foreign tax authorities. Approximately one half said they would use U.S. documentation for foreign purposes, mostly without modification. Only one in four indicated that they would prepare separate documentation for foreign purposes. This response is, perhaps, attributable to the lack of documentation requirements and/or the lack of meaningful penalties in most countries.

³¹ However, slightly less than half of Canadian respondents thought their company would use an APA.

³² 1995 Transfer Pricing Documentation Survey, The Year in Review, Ernst & Young, 1996.

³³ U.S. documentation requirements are discussed at page 12.

Despite the fact that the use of a results-based comparable profits method³⁴ (CPM) is generally resisted by other countries,³⁵ 49 percent of respondents use this method, alone or in combination with another method, for pricing the transfer of goods, while 37 percent use it for intangibles. Approximately one half of the respondents used more than one method for pricing goods, and one quarter used more than one method for intangibles. Since use of CPM is not accepted by the OECD³⁶ without reservation, the extent to which it is used by the respondents indicates the impact of the detailed U.S. regulations and penalties on the transfer pricing decision. This influence was recognized by many of the respondents: 25 percent of those using CPM expected to recast CPM for foreign purposes as another method and 10 percent of those using CPM expected to be challenged in foreign jurisdictions. Some 40 percent were unsure of the impact of using CPM, and 25†percent expected no foreign difficulties.

Approximately one half of respondents were under audit in their transfer-pricing policies, and many had been asked to supply documentation by foreign jurisdictions, as shown below.

Country	No. under audit	No. asked to supply documents
Canada	28	16
United Kingdom	24	7
Germany	13	3
Australia	10	8
United States	19	n/a
Other	22	11

The above results confirm Revenue Canada's increased activity in this area and its diligence in seeking documentation, despite the absence of legislative or regulatory documentation requirements or penalties.

³⁴ Under this method, the profit performance of a related party is compared with the profit performance of arm's-length companies performing similar functions. Detailed procedures are set out in the *Regulations to the U.S. Internal Revenue Code*.

³⁵ See, for example, joint release 94-3 issued by Revenue Canada and the Department of Finance on January 7, 1995.

³⁶ OECD, *supra*, paragraph 3.1. The OECD guidelines suggest that the TNMM can be used as a last resort as a profit-based method; the CPM is dismissed as a method unless it corresponds with the arm's-length principle. Some U.S. authors have suggested that the TNMM is equivalent to CPM; this position is not generally accepted (see, for example, a speech presented by Carole Gouin of Revenue Canada at the June 6-7, 1996 meeting of the Canadian and U.S. branches of the International Fiscal Association, in Montreal).

The survey also found that over 60 percent of respondents used external advisors in the process of completing their documentation requirements. The costs of completing these requirements were relatively high, whether in dollars expended or in person hours, as illustrated by the following table:

Sales volume	Median cost	Median hours
< U.S. \$500 million	U.S. \$45,000	120
U.S. \$500 million to \$1 billion	U.S. \$50,000	165
U.S. \$1 to 5 billion	U.S. \$100,000	200
> U.S. \$5 billion	U.S. \$150,000	500

The amounts expended, in both dollars and in time, were higher for non-U.S. companies than for U.S.-based MNEs. The above table illustrates that the costs of compliance fall relatively more heavily on smaller companies.

OECD transfer-pricing guidelines

A comprehensive update to the 1979 transfer-pricing guidelines was issued in mid-1995. The guidelines were issued in loose-leaf, rather than bound, form to allow more frequent updates.³⁷ Essentially, the revised guidelines reaffirm the arm's-length standard in setting intercompany transfer prices. The guidelines include a stated preference for transaction-based methods rather than profit-based methods for setting transfer prices. Nonetheless, two profit-based methods – the TNMM and the profit split method (PSM) – are identified as acceptable.³⁸

³⁷ The first update, dealing with services, was issued in 1996.

³⁸ OECD, *supra*, Chapter III. The TNMM has been variously described as both supporting and eliminating the use of the U.S. comparable profits method for setting inter-company transfer prices. There have been two articles commenting on the TNMM. The first article by Robert Culbertson (*Tax Notes International*, Aug. 7, 1995), concludes that the CPM and the TNMM are the same. Another article by Michel Taly (*Tax Notes International*, Jan. 29, 1996) warns that "U.S. tax practitioners who conclude from Culbertson's article that, in essence, the use of CPM in establishing transfer prices is completely acceptable to European tax administrations may find their U.S.-based multinational clients facing serious transfer pricing problems in Europe in the future." Both Culbertson and Taly were participants in the OECD negotiations, and yet both seem to have come away with a different understanding of the consensus.

Revenue Canada prefers that a transaction-based method be used; it does employ the PSM when appropriate (often as a means of evaluating the reasonability of another method). It currently appears that Revenue Canada expects the TNMM to be used rarely, if at all.

Those involved in transfer pricing should be aware of the varying importance attributed to the OECD guidelines by various tax authorities. In the United Kingdom, the guidelines are applied by the Inland Revenue; in Germany, acceptance of the guidelines has been reserved.³⁹ In Canada, the guidelines are supported⁴⁰ although there is some question as to whether the TNMM has practical application. In the United States, the guidelines are virtually ignored at the field level, and the IRS regulations will be applied.⁴¹

U.S. developments

A number of important developments have taken place in the United States during the past several years, the most notable being the finalization of 482 regulations governing related-party transactions which are now in effect.⁴² Essentially, these regulations require that contemporaneous documentation be used to support the best method for determining the results of intercompany transactions, otherwise any adjustments made may attract penalties of either 20 percent or 40 percent of the tax understatement.⁴³ The United States has also issued detailed rules on cost-sharing arrangements and has updated its APA procedures.

The final regulations set out the following 10 principal documents necessary to support the use of the best method:⁴⁴

- an overview of the taxpayer's business, including economic and legal factors affecting pricing;
- a description of corporate structure affecting related-party transactions;
- supporting documents and agreements;
- descriptions of the selected TPM(s) and reasons for selecting the TPM(s);
- descriptions of rejected methods and reasons for rejecting them;
- descriptions and analyses of related-party transactions;
- descriptions and analyses of comparables used to support the choices made;
- explanation of economic analysis and projections;
- a description of relevant data obtained between the end of the year and the time the tax return was filed; and
- a general index of principal supporting documents.

³⁹ Germany believes that too much credence has been given to profit-based methods.

⁴⁰ Press release dated July 28, 1995; the U.S. Treasury department issued a similar release at that time.

⁴¹ The IRS position is that the IRC regulations are consistent with the guidelines.

⁴² Generally, U.S. companies were required to have contemporaneous documentation supporting their TPMs at the time they filed their 1994 tax returns in the United States; for companies with December 31 year ends, this information had to be compiled on or before September 15, 1996.

⁴³ A 20% penalty applies if the amount of tax at issue is more than \$5 million or 10% of gross receipts; for adjustments over \$20 million or 20% of gross receipts, a 40% penalty applies. There are special provisions for smaller companies and for reasonable cause.

⁴⁴ These documents are to be prepared contemporaneously with the filing of the corporation's U.S. tax return and must be provided to the IRS within 30 days of being requested.

In addition to this contemporaneous documentation, which must be available but need not be filed with the tax returns, the IRS requires that certain information on related-party transactions and offshore activities be included when filing.⁴⁵

At the IRS audit level, taxpayer experience has varied. In some districts, there has been a stepped-up scrutiny of foreign-owned companies; in other districts, there has been no noticeable change in scrutiny. Generally, one can expect an IRS field-office economist or industrial engineer to be consulted by the international tax agent assigned to the case.

Other country developments:

Australia

In addition to supporting and expanding the use of APAs, the Australian Taxation Office (ATO) has issued comprehensive transfer pricing rules. The ATO has also issued draft tax rulings which outline its position on the following:

- selection and application of transfer pricing methodologies;
- documentation requirements; and
- penalties for non-compliance.

The ATO has expanded its tax audit and tax strategy review program by conducting transfer-price risk-assessment reviews that comprise a very specific and detailed review of a taxpayer's transfer-pricing practices. The ATO has set out its guidelines as to how taxpayers should evaluate their exposure to penalties and their risk of transfer-pricing adjustments.

The ATO bases its penalty regime on two criteria: first, whether the taxpayer had a dominant purpose of tax avoidance, and second, whether the taxpayer has a reasonably arguable position regarding compliance with the arm's-length principle. The rates of penalty vary generally between 10 and 50 percent of the tax adjustment, but are more commonly between 10 and 25 percent where there is no purpose of tax avoidance. The ATO has a residual discretion to remit transfer-pricing penalties.

The ATO expects that all taxpayers will create and maintain contemporaneous documentation of their TPMs. This documentation should include the following:

- documents created in the ordinary course of business;
- a functional analysis;
- support for the method chosen; and
- documents prepared in the course of review of the TPM.

⁴⁵ IRS forms 5471 and 5472 are used to report this information.

The ATO requires that taxpayers complete a reporting form outlining the nature and extent of transactions between related parties.⁴⁶

Japan

Transfer-pricing rules were first introduced in 1986 to ensure that Japan can tax its fair share of international income. Since then, the Japanese tax authority, the NTA, has proposed tax reassessments exceeding \$1.5 billion. The NTA has stepped up its transfer-pricing enforcement over the past three years. In October 1993, the NTA announced a policy detailing the transition to a new phase of aggressive monitoring and expanded the scope of its examinations. This appears to be in response to developments in the United States. In 1995, the NTA formed special teams at the regional and national levels to investigate transfer-pricing matters.

The NTA has endorsed the use of a pre-confirmation system, similar to APAs, and several are under negotiation. Japan is a member of PATA and adopted, in September 1994, the association's Guidelines on Bilateral Advance Pricing Agreements.

Korea

Korea has announced comprehensive transfer-pricing rules and has implemented an APA procedure.

Mexico

The *Hacienda* announced transfer pricing rules for *Maquiladoras*. These regulations can impute a minimum return to a *Maquiladora*, unless the company can establish an arm's-length relationship from its operations. Various filing and notification requirements are contained in the legislation. It is understood that Mexico has completed a number of APAs with the U.S. and is planning to introduce a formal APA program.

France

France recently announced penalty provisions for non-compliance with the arm's-length standard.

Canadian developments

A number of important developments have taken place in Canada. Revenue Canada has become more visible in reviewing international transactions. It is apparent that several district offices are selecting companies for audit on the basis of their T-106 filings; the T-106 forms themselves have been expanded for filings after 1995. Penalties have also been increased for non-compliance, but generally are limited to \$48,000 in extreme cases. Routine cyclical audits frequently involve referrals to international specialists within the local tax service office (TSO). Furthermore, some TSOs specialize in particular industries. Unlike the IRS, Revenue Canada TSOs do not appear to have ready access to local economists and process engineers; however, the international division in Ottawa does have an Economics Analysis Group that provides support to the TSOs.

⁴⁶ Revenue Canada referred to the ATO and IRS reporting forms when developing its T-106 form.

Until recently, the majority of Revenue Canada audits would focus on intercompany service charges. These audits would generally follow a predictable pattern: a request for foreign-based information, a proposal to travel, at the taxpayer's expense, to the foreign location to examine its books and records, and a request for a functional analysis and for interviews with foreign personnel. If the requested information is not submitted, Revenue Canada may invoke Section 231.6 of the *Income Tax Act* to obtain foreign-based information relevant to the determination of a Canadian taxpayer's income.

In the past, audits would often result in a partial disallowance of intercompany charges and the use of subsection 15(1) or (2) to assess the non-resident parent as well. Queries relating to transfer pricing for tangible goods or intangibles were somewhat rare. That has now changed. Field auditors now routinely ask for functional analyses to support TPMs for tangible goods; as well, royalties are under review. Increasingly, the auditor will rely on information obtained from other audits as guidelines in determining whether a particular pricing approach gives results within a reasonable range.

Looking ahead, it is possible that Revenue Canada auditors will start asking for copies of the documentation required for U.S. tax purposes.⁴⁷

Unlike the U.S., Canada has little experience in the courts dealing with TPMs or valuation. Rather, transfer-pricing cases, such as *Indalex*,⁴⁸ have been fought on the basis of artificiality or avoidance. However, preliminary court documents have been filed on a transfer-pricing case (SmithKline) that will deal with the reasonability of a particular transfer price.

Under the current Canadian *Income Tax Act*, a person is liable to a penalty to a maximum of \$2,500 for failure to file or for late filing the T-106 information return. Where Revenue Canada has served a demand for filing the T-106 and the taxpayer has not complied within 90 days, an additional penalty of \$1,000 per month applies to a maximum of \$24,000.

Draft legislation released on March 5, 1996, increased the penalties related to the T-106 for returns due after April 29, 1997. The penalty for failure to file the T-106 has been increased to \$500 per month to a maximum of 24 months (\$12,000). Where Revenue Canada has served a demand to file the T-106, within a specified period, and the taxpayer has not complied, the penalty continues to be \$1,000 per month with a maximum of \$24,000.

The draft legislation proposes an additional penalty of \$24,000 per T-106 in circumstances amounting to gross negligence, where the taxpayer has made or participated in, assented to or acquiesced in making a false statement, or omitting information.

⁴⁷ It is unclear at this time whether this information can be obtained through the IRS under the Treaty in the event the taxpayer refuses to provide the information to Revenue Canada directly.

⁴⁸ 88DTC 6053 (FCA).

Subsection 163(2) and 239(1) deal with circumstances where false statements or omissions of information lead to an understatement of Canadian taxes, and consequently, penalties that range from 50 to 200 percent of the tax underpayment may apply. There is little, if any, experience in the application of these penalties to transfer-pricing matters.

The APA process

In certain countries, including Canada, taxpayers may approach tax authorities to seek advance approval of a transfer-pricing method or methods. Such procedures are available on a unilateral, bilateral or multilateral basis. The procedures for applying for an APA in Canada are set out in Revenue Canada's *Information Circular* 94-4. The 1995 Ernst & Young survey (*supra*) found that Canadian companies are well aware of the APA process although they are somewhat reluctant to use it, because they consider the process to be too time-consuming and expensive. The general experience has been that it takes companies as long to document their TPMs as it does for the revenue authorities to evaluate the APA submission. Currently, Revenue Canada is testing a "fast-track" APA procedure for taxpayers with relatively low transaction volumes.

Summary and discussion of suggested actions

A distinguishing feature of transfer pricing policies, procedures and enforcement is that these matters cannot be viewed in isolation but must be viewed in a broad international context. As noted by the OECD, "In the case of tax administrations, specific problems arise at both policy and practical levels. At the policy level, countries need to reconcile their legitimate right to tax a taxpayer based upon income and expenses that can reasonably be considered to arise within their territory with the need to avoid the taxation of the same item by more than one tax jurisdiction. Such double or multiple taxation can create an impediment to cross-border transactions in goods or services and the movement of capital. At a practical level, a country's determination of income and expense allocation may be impeded by difficulties in obtaining pertinent data located outside its own jurisdiction."⁴⁹

These comments summarize the difficulties facing jurisdictions that wish to protect their tax base while not unduly encumbering the flow of goods, services and capital. In the recommendations that follow, an attempt has been made to achieve this balance; in doing so, significant reliance has been placed on the discussion of these issues by the OECD, as reflected in its transfer-pricing guidelines.

⁴⁹ OECD, *supra*, p. P-1, para. 4.

Basis for determining non-arm's-length prices

- Canada should continue to apply the transactional methods endorsed by the OECD when evaluating intercompany transfer pricing used between related parties.⁵⁰
- The general and flexible "reasonable in the circumstances" arm's-length criterion of section 69 of the *Income Tax Act* does not require amendment.

Revenue Canada has acknowledged its general acceptance of the OECD guidelines and revisions to *Information Circular 87-2* to confirm this acceptance are anticipated. The OECD guidelines agree with the transactional-based approach of the *Income Tax Act*. Revenue Canada should continue to endorse and follow the OECD guidelines as they appear to achieve the balance needed between protecting the domestic tax base without creating double taxation.

It is recognized as a fundamental principle of Canadian taxation that members of a related domestic or international group must be taxed on the basis as though they deal at arm's length with each other. However, common ownership allows group members to act with a common objective; such an objective is rarely found in true arm's-length transactions. Nonetheless, most MNEs do attempt to take into account various factors when setting intercompany transfer prices and, with the encouragement of tax authorities, to use reasonable pricing methods.⁵¹

Consequently, the OECD states that "tax administrations are encouraged to take into account the taxpayer's commercial judgement about the application of the arm's-length principle in their examination practices and to undertake their analyses of transfer pricing from that perspective."⁵²

In paragraph 1.12 (p. I-5) of its guidelines, the OECD makes an important point: "The arm's-length principle usually requires taxpayers and tax administrations to evaluate uncontrolled transactions and the business activities of independent enterprises, and to compare these with the transactions and activities of associated enterprises, it can demand a substantial amount of data.

.... It should be recalled at this point that *transfer pricing is not an exact science but does require the exercise of judgment on the part of both the tax administration and the taxpayer.*" (emphasis added).

Some have suggested that Canadian transfer-pricing rules should be made more specific and translated into legislation. As noted previously and pending the outcome of the SmithKline case, there have been no cases dealing with transfer pricing as the sole matter. Accordingly, it is not known whether the current tax legislation has sufficient teeth to deal with transfer pricing abuses.

⁵⁰ Revenue Canada endeavours to apply three preferred transactional methods, CUP, resale minus, and cost plus. When it is not possible to do so, or if Revenue Canada considers it more appropriate, other methods, including profit splits, may be used. Each of these approaches is approved by the OECD.

⁵¹ At paragraph 1.2 the OECD states: "Tax administrations should not automatically assume that associated enterprises have sought to manipulate their profits... The consideration of transfer pricing should not be confused with the consideration of problems of tax fraud or tax avoidance even though transfer-pricing policies may be used for such purposes."

⁵² OECD, *supra*, P-5.

In the meantime other jurisdictions, most notably the United States have set out detailed tax rules and procedures.

It is suggested that, while detailed legislation may be attractive from a purely domestic perspective, it may not allow for the degree of judgment and flexibility required in an international context. Accordingly, a system that sets out a general standard (i.e. transactional arm's-length pricing method) and comprehensive guidelines for applying the standard (such as the OECD Guidelines) should be preferred, particularly for a country that imports capital. It is suggested that the present provisions of section 69 of the *Income Tax Act* are sufficient for this purpose. Nonetheless, as recommended below, Canada should enact documentation standards and penalty provisions targeted at transfer-pricing abuses.

Administrative policies and guidelines

- Information *Circular IC 87-2* should be updated and reissued as soon as possible. It should be more comprehensive in scope and should contain more extensive examples. As well, the Circular should be more specific in identifying the administrative approaches applied by Revenue Canada in evaluating the TPM used by taxpayers.
- Customs and Goods and Services Tax (GST) principles should be more consistent with the Income Tax approach to resolving transfer-pricing disputes.
- An executive interchange program should be initiated between the department and the private sector, where appropriate, to encourage the sharing of expertise.
- Revenue Canada should provide guidance on how it intends to use T-106 and tax-return reporting in its transfer-pricing enforcement and review.

As recommended above, the Canadian transfer-pricing principle and policies should be based on the principles enunciated in the OECD guidelines. Canada's application of transfer-pricing policies is set out in its *Information Circular IC 87-2*. This circular was based on the 1979 OECD guidelines and is in the process of being updated. If Canada is to continue to follow the OECD guidelines in general, it is important that any exceptions to the Guidelines be known as soon as possible. Accordingly, Revenue Canada should complete its revisions to the Circular and consider announcing any differences between the Guidelines and the revised circular, before it is released.

The circular should be expanded to make it more comprehensive. In Australia, the ATO has issued a detailed draft ruling (similar to an information circular) that could serve as a model for Revenue Canada's revised circular.

The OECD guidelines apply to income tax matters. In addition, transfer pricing can affect the amount of customs or excise taxes raised. Different international conventions and agreements, such as the General Agreement on Tariffs and Trade (GATT), apply for customs purposes. Nonetheless, taxpayers are often left with the dilemma that what is acceptable for income tax purposes may be challenged for customs or excise tax purposes or vice versa. With the integration of Revenue Canada's customs, excise and income tax divisions, more consistency in application of standards is to be expected.

As noted by the OECD, determining appropriate transfer prices is not an exact science - a great degree of judgment must be brought to bear. Revenue Canada, and taxpayers, have benefited in the past from exchanges of personnel. This practice has been followed, for example, in the rulings directorate. Transfer pricing expertise and experience could be another area where such exchanges are appropriate. It is recognized that there are some issues that would have to be overcome before embarking on such a program. Transfer-pricing issues, while perhaps not as technically complex as rulings, do involve a significant period of time being spent to gather and evaluate relevant information. Potentially, more sensitive commercial information must be disclosed in the course of a transfer-pricing review, and enterprises would not wish to share this information with a competitor participating in an exchange program. Nonetheless, this is an idea that should be evaluated as a way to make business experience available to Revenue Canada's transfer-pricing specialists.

Revenue Canada has compiled information from T-106s submitted by taxpayers. It is using this information to initiate tax programs and audits.⁵³ Revenue Canada should provide general guidance to taxpayers on how this information is to be used. At present, taxpayers do not know how responses to various questions on the T-106 will affect them, or other taxpayers. For example, the SIC codes used for T-106 purposes are somewhat more condensed than the general SIC numbers, and it is often possible to use more than one (or none) of the T-106 codes to describe a taxpayer. At this time taxpayers are uncertain as to the implications of choosing one code over another. It is recommended that Revenue Canada provide more guidance to, and seek suggestions from, taxpayers on the use and completion of this important form.

Examination practices

- Revenue Canada should continue the specialized training and status of personnel involved in transfer-pricing audits. Involvement of these trained specialists should be mandatory in all transfer pricing reviews.
- TSO transfer-pricing specialist personnel should include legal and economic support.
- Until more experience is gained by TSO personnel, proposed transfer-pricing reassessments should be referred to the International Tax Directorate in Ottawa to ensure consistency across the country. Taxpayers should be allowed to participate in the referral process.

As noted in the Ernst & Young studies referred to above, Revenue Canada has been very active in auditing international transactions and MNEs. Revenue Canada has increasingly used trained transfer-pricing personnel in its audits of MNEs. This is desirable from both Revenue Canada's perspective and that of taxpayers, particularly given the judgment that must be brought to bear in identifying and resolving transfer-pricing issues.

⁵³ See footnote 2, *supra*.

Taxpayers are increasingly using non-traditional resources in dealing with sophisticated transfer-pricing issues. For example, the U.S. regulations generally result in an economist or process engineer being used to complete and evaluate functions performed by the related parties. Revenue Canada auditors will likely require more direct access to these specialists when dealing with transfer-pricing issues, and plans should be made to meet these needs and to provide the necessary resources.

Transfer-pricing disputes can be quite complex and expensive, as the time and effort needed to develop and document a position can be considerable.⁵⁴ Interpretation of transfer-pricing principles can be quite subjective. It is therefore not surprising that the evaluation of a particular transfer-pricing policy will vary from taxpayer to taxpayer and between individual Revenue Canada auditors, as such decisions will reflect not only the relevant facts and circumstances, but also the experiences of the individuals involved. Accordingly, it is important the consultations be open and that as much experience as is available be brought to bear.

As noted above, transfer-pricing disputes do not only have domestic implications. From an international perspective, consistency is expected in similar circumstances. Accordingly, it is important that Revenue Canada's application of transfer-pricing policies be as consistent as possible. Under Canada's tax treaties, a mechanism is in place for resolving potential double-taxation issues through the competent authority process with the other country(ies). Canada's competent authority personnel have considerable experience in resolving these matters successfully.

Consequently, it is important that those involved in potential transfer-pricing adjustments receive the benefit of this experience, before reassessments are first proposed. While a taxpayer may request such assistance, smaller taxpayers are often reluctant to do so because of concerns about the time and money that may be involved. Revenue Canada may be in a better position to initiate such consultations and should do so as a matter of course to ensure national consistency.

Burden of proof

- Taxpayers should be expected to be able to support the reasonability of related-party transfer pricing through contemporaneous documentation. The extent of documentation needed will vary from case to case, but will likely not be as extensive as that required for U.S. tax purposes.

Under Canada's tax system, the burden of proof in tax disputes often lies with the taxpayer. However, in transfer-pricing disputes, it appears that Revenue Canada must show that the taxpayer's method was not reasonable in the circumstances. In effect, the burden of proof is shifted. This may not be an inappropriate result, particularly given the potential for double taxation.

⁵⁴ See comments on the 1996 Ernst & Young documentation survey, *supra*.

However, taxpayers must assume some responsibility for supporting their transfer-pricing policies, even in the absence of a pending tax audit or challenge. As noted in the 1996 Ernst & Young study, few respondents intended to prepare documentation for non-U.S. purposes. From a domestic perspective, particularly given the continuing controversy about the CPM, this is probably not acceptable. In the absence of voluntary documentation, it seems appropriate for Canada to introduce documentation requirements of its own.

It is recommended that this documentation be restricted to sufficient information to support the reasonability of the method chosen by the taxpayer for transfer-pricing purposes. Unlike the U.S. system, which requires the best method be selected, choice of a reasonable price should not require that all other methods be evaluated.⁵⁵

It is suggested that the following documentation be required:

- an outline of the business and intercompany relationships;
- details of intercompany transactions;
- the transfer-pricing method(s) chosen;
- relevant supporting information and analysis, including comparables;
- special conditions, e.g. market penetration strategies, affecting intercompany pricing; and
- a functional analysis.

In the case of companies dealing with related parties in the United States, most of this information should be available from the documentation required under the U.S. transfer-pricing legislation, resulting in relatively little incremental cost in developing supporting documentation for Canadian tax purposes.

Penalties and compliance requirements

- Given the need to balance fairness and simplicity against the pressures of detailed information reporting and the penalties applied under other tax regimes, and given the need to balance flexibility and uncertain rules against inflexibility and very detailed rules, Canada is well served by less specific rules than those followed in the United States.
- Revenue Canada's initiatives in increasing its review of related-party transactions are warranted; and its continuing advocacy of increased use of simultaneous examinations is desirable. Real-time audits of transfer-pricing transactions should be encouraged.
- Canada should introduce specific penalties for underreporting of income due to transfer-pricing manipulation. Such penalties should differentiate between taxpayers who act in reasonably good faith (as evidenced by contemporaneous documentation) and those who do not.

⁵⁵ Revenue Canada suggests that all methods need to be considered. For example, the APA program requires that a taxpayer explain why a particular method is not considered appropriate for the transaction(s).

Compliance with transfer-pricing principles and standards concerns all tax authorities. When one or more tax regimes impose penalties to ensure compliance with their system, other tax authorities will be rightly concerned that taxpayers will be motivated to over-comply with that authority's rules.⁵⁶ Canada faces that very situation – with its largest trading partner, the United States.

It has been suggested that some balance is needed and that Canada should introduce penalties for non-compliance. In designing any penalties, the following principles should be applied.⁵⁷

- "No fault" or automatic penalties should not be applied. Severe penalties which apply based on the mere existence of an understatement are inappropriate, particularly when such understatement is due to an error made in good faith.
- The amount of penalty should be significant enough to warrant attention but not unreasonable. A 20 to 30 percent penalty may be appropriate where evidence of reasonable good faith is lacking.
- Penalties should be related to the lack of reasonable documentation and to situations where good faith is lacking.

Given that most T106 filings appear to involve the United States,⁵⁸ it is relevant to look to the approach used there. Penalties can be avoided in the United States if there is reasonable documentation in accordance with its penalty regulations. As U.S. affiliates of Canadian taxpayers must comply with the U.S. documentation requirements, and as there are differences in the application of the arm's-length standard between the U.S. and Canada, it seems appropriate to base the good-faith standard on whether the taxpayer has compiled documentation reflecting Canadian standards. In addition, the availability of Canadian-oriented documentation should enhance the ability of the taxpayer and Revenue Canada to deal with transfer-pricing audits on a timely and more cost-effective basis.

Revenue Canada should have the discretion to waive any transfer pricing penalties pursuant to subsection 220(3.1) of the *Income Tax Act*. This discretion would be appropriate, for example, if the tax reassessed by Revenue Canada is subsequently adjusted pursuant to the competent authority procedures of one of Canada's tax treaties.

The advance-pricing agreement program

- The APA program is vital to fair and open administration of the tax system and to keep the Canadian system competitive and fair.

⁵⁶ The OECD makes a similar observation at paragraph 4.26 of its Guidelines (*supra*).

⁵⁷ The OECD guidelines comment that the member states concur that sizable no-fault penalties are unduly harsh in good-faith situations and should not be applied where taxpayers have made a reasonable effort to comply with the arm's-length standard, OECD, *supra*, para. 4.28.

⁵⁸ See footnote 2.

- The APA program requires additional resources and a "fast-track" APA or informal APA procedure should be made available for smaller companies.⁵⁹

The APA program is a welcome development and provides a reasonable means to reduce transfer-pricing exposure. The APA program is still in its early stages and, with the exception of modified procedures for smaller, fast-track APAs, should be continued in its present form until more cases have been considered and resolved.

Competent Authority

- Canadian taxpayers should be kept fully aware of progress of Competent Authority procedures affecting them.

Taxpayers involved in the competent authority process have expressed concern with the amount of time involved in competent authority resolution of matters and with their perceived lack of involvement in the process. As noted by the OECD, the competent authority procedure is not a process of litigation and the taxpayer's participation should be subject to the discretion of the competent authorities.⁶⁰ As the procedure is a negotiation between governments, this conclusion is probably appropriate. Nonetheless, in recognition of the frustrations expressed by taxpayers, the Canadian competent authority should endeavour to keep them informed on a timely basis as to the progress of discussions with the other competent authority.

⁵⁹ Currently Revenue Canada has accepted two smaller, fasttrack APAs for consideration.

⁶⁰ OECD, *supra*, para. 4.58.

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

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Mr. Norm Promislow
Buchwald Asper Gallagher Henteleff
Winnipeg, Manitoba

The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

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They are also available on the Internet at <http://www.fin.gc.ca/>

Technical Committee on Business Taxation Completed Research Studies

- ☐ **WORKING PAPER 96-1**
Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States
Brian Arnold (Goodman Phillips & Vineberg)
Jinyan Li and David Sandler (University of Western Ontario)
- ☐ **WORKING PAPER 96-2**
Why Tax Corporations
Richard Bird (University of Toronto)
- ☐ **WORKING PAPER 96-3**
Tax Policy and Job Creation: Specific Employment Incentive Programs
Ben Cherniavsky (Technical Committee Research Analyst)
- ☐ **WORKING PAPER 96-4**
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Study on Transfer Pricing
Robert Turner (Ernst & Young, Toronto)
- ☐ **WORKING PAPER 96-11**
The Interaction of Federal and Provincial Taxes on Businesses
Marianne Vigneault (Bishop's University)
Robin Boadway (Queen's University)
- ☐ **WORKING PAPER 96-12**
Taxation of Inbound Investment
Gordon Williamson (Arthur Andersen, Toronto)

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Government
Publications

The Interaction of Federal and Provincial Taxes on Businesses

Marianne Vigneault
Queen's University and Bishop's University

Robin Boadway
Queen's University

December 1996

WORKING PAPER 96-11

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

The Interaction of Federal and Provincial Taxes on Businesses

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Prepared for the
Technical Committee on Business Taxation

Comments on the working papers are invited and may be sent to:

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Abstract

This paper provides an analysis of the ways in which the interaction between federal and provincial taxes on businesses can create distortions in the levels and types of taxation and identifies ways in which these distortions can be minimized or even eliminated. Distortions arise when full account is not taken of the effects of one level of government's tax policy choices on the other level's budget. Where this is the case, government choices of both the levels and types of taxation are likely to be sub-optimal relative to a national optimum. We identify and examine five key sources of such distortions in the Canadian tax system. These are: (i) federal and provincial co-occupation of the corporate income tax field, (ii) taxes levied at one level of government that are creditable/deductible for the purpose of calculating taxable income at another level, (iii) treatment of one level of government's resource taxes under the tax system of the other level of government, (iv) treatment of one level of government's tax incentives under the tax system of the other level of government, and (v) tax treatment of Crown corporations.

1. Introduction

The allocation of taxing powers in Canada is such that the provinces have few limitations on their ability to raise revenues. Although the Constitution grants the federal government access to any revenue source, it has chosen to leave property taxes to the provincial/municipal governments. The only revenue sources for which the provinces do not have access are customs duties and non-resident withholding taxes. Thus, both the federal and provincial levels of government levy direct and indirect taxes, and co-occupy several tax fields.

The fact that a high proportion of revenues in Canada is raised in co-occupied tax fields leads to there being considerable interaction between the federal and provincial tax systems. This interaction distorts both the degree and type of taxation chosen by each level of government and, as a result, interferes with the overall efficiency of the economy. The purpose of this paper is to examine the inefficiencies created by the interaction of federal and provincial taxes on businesses, and to identify ways in which these distortions can be minimized or eliminated.

2. Background

Taxes on businesses in Canada include corporate income taxes, individual taxes on unincorporated business, capital taxes, payroll taxes, property and other local taxes, and resource taxes.¹ The personal income tax is the most important tax revenue source in Canada. This fact reflects the value judgement that income derived from labour and capital is the most suitable measure of an individual's well-being or "ability-to-pay." The most important tax on businesses is the corporate income tax. The corporate income tax base equals revenues net of current costs, interest payments, and depreciation deductions, and roughly constitutes the income that accrues to the corporation's shareholders (i.e. equity income). Because income paid out to shareholders is

¹ Although payroll taxes are levied on both employers and employees, it is unclear who actually bears their burden (see, for example, Dahlby (1992)). If wages fall to offset the tax, then the tax is levied on labour income and therefore should be considered as part of the personal income tax. If the fall in wages is not enough to offset the tax and if firms do not shift the burden forward to consumers, then employers bear some of the tax in the form of higher wage costs.

taxed at the personal level, the question naturally arises as to why a further tax at the corporate level exists. It is necessary, then, to provide a justification for why governments choose to levy a corporate income tax. Doing so will assist us in identifying the distortions created by the interaction of federal and provincial taxes on businesses. Following this, we provide a theoretical overview of the inefficiencies that may occur because of the interaction of federal and provincial taxes.

2.1 Justification for the Corporate Income Tax²

Several arguments have been made in support of a corporate income tax as part of an optimal tax system. The one described here is important for our purposes due to its role as a withholding tax on income that cannot be taxed properly at the personal level. In fact, the Carter report singled out this role as the only justification for the corporate income tax. The need for withholding arises from two distinct sources. The first is earnings retained in the corporation that give rise to capital gains. Without the corporate income tax, individuals can postpone taxation by reinvesting in the corporation, because capital gains are taxed in the personal income tax only when realized. The corporate income tax, then, acts as a withholding device on retained earnings that yield capital gains, which cannot be taxed on an accrual basis in the personal income tax.³ The other way in which the corporate income tax acts as a withholding device is against income earned by foreign shareholders. The personal income tax in Canada is a residence-based tax. Consequently, equity income earned in Canada by foreign residents is not taxed at the personal level. Thus, without the corporate income tax, this income would escape taxation in Canada altogether.

A counter-argument to the foregoing justification is that income from capital should not be part of an optimal tax system for a small open economy such as Canada's.⁴ The supply of capital in a small open economy is perfectly elastic at the foreign rate of return. Therefore, a tax on capital income such as the corporate income tax is not borne by capital, but is instead shifted to

² For a more detailed discussion, see Boadway, Bruce, and Mintz (1987) pp. 35-41.

³ If dividends are taxed at the personal level and are not deducted at the corporate level, then that income is taxed twice. In Canada, the personal and corporate income taxes are integrated by allowing individuals a dividend tax credit, to partially eliminate the double taxation.

⁴ See, for example, Diamond and Mirrlees (1971).

less-mobile factors such as labour. Optimal taxation theory, then, dictates that labour should be taxed directly because workers are no worse off and the allocation of capital is not thereby distorted.

One explanation for the existence of taxes on capital income in small open economies has been suggested by Gordon (1992), and follows from the justification for the corporate income tax as a withholding device on income earned by foreign shareholders. If foreign shareholders are taxed by their own governments on their income earned in Canada, then the income is subject to double taxation.⁵ A common convention for avoiding double taxation is for the home country to provide a credit for corporate income taxes paid in Canada. If capital-exporting countries do provide such a credit, then there is an incentive for capital-importing countries like Canada to tax income accruing to foreigners. In this way, a capital-importing country gains tax revenues at the expense of foreign governments without losing foreign investment. Indeed, not to tax it is to forgo a pure revenue transfer from foreign treasuries.

Another justification for the existence of the corporate income tax is its potential as a non-distorting tax on pure profits. This is especially true for the resource industries. Resource industries generate sizable rents. As a result, a major motivation for taxing these industries is to capture these rents in a non-distorting way. In an attempt to do so, the federal and provincial governments levy a number of taxes on resource industries that vary considerably across industries and provinces. The end result is a system that is far from non-distortionary.

Although existing corporate income tax systems are not designed to tax rents and thereby distort the marginal investment decisions of firms, if investment costs are sunk, then taxation of the resulting income is non-distortionary.⁶ This issue was raised in a seminal paper by Doyle and van Wijnbergen (1994) and has been used as an explanation for the policy of levying low or zero (a tax holiday) rates in the early stage of a firm's production process, followed by a high tax rate after a specified period of time has elapsed. In the early stages of production, the level of

⁵ Note that the dividend tax credit allowed in the personal income tax only applies on domestic holdings.

⁶ Note that investment need not be irreversible for positive (and possibly high) tax rates to be optimal. What is required, as Wen (1996) has shown, is costly changes to the capital stock.

investment is variable, and the corporate income tax is therefore distortionary. However, after fixed investment costs have been incurred, the government has an incentive to raise its tax rate, so as to extract a larger share of firm profits. Firms know the incentive facing the government to levy high tax rates in the future, and therefore invest only if they are granted a very low or zero tax rate early on. This incentive may help to explain why general tax rates tend to be high and why several provinces offer tax holidays to new firms.

2.2 Inefficiencies Arising from the Interaction of Taxes

We now provide a theoretical description of the inefficiencies that can arise from the interaction of tax systems within a federation. In the next section, we apply what we have discussed here to the Canadian system of business taxation.

The implications of tax interactions for the efficiency of the tax system depend on how each government, when choosing its tax policy, treats the well-being of citizens residing in other jurisdictions and on how it believes other governments will respond to its choices. Fiscal externalities occur if full account is not taken of the effects of policy choices on non-residents either directly or indirectly via their effects on other governments' budgets. Consequently, government choices of both the level and type of taxation are likely to be suboptimal relative to a national (or global) optimum.

It is important to emphasize that the policies chosen by governments depend on the way governments respond to one another's choices. To examine this theoretically, it is first necessary to make assumptions regarding government behaviour. For example, it may be reasonable to assume that each of the several provinces perceives itself to be a small player in the federation, and therefore makes its policy choices, taking as given those adopted by the federal government.⁷ On the other hand, since there is only one federal government, it seems plausible to assume that it takes into account the effect of its choices on the provinces. The federal government can then be in a position to reduce or even eliminate fiscal externalities occurring at the provincial level, by an

⁷ This assumption may be disputed based on the fact that some provinces such as Ontario have a relatively large share of the economic activity in Canada, and may therefore perceive themselves to be large players within the federation.

appropriate choice of policies that take into account the response of the provinces. Note, however, that it may be costly for the federal government to do so because it may require corrective transfers to the provinces, or the federal government may have to forego some tax revenues.⁸

Dahlby (1994, 1995) and Mintz (1992) distinguish between two types of fiscal externalities. One affects taxpayers' welfare directly by, for example, changing relative prices. The other affects taxpayers' welfare indirectly by affecting the tax revenues collected by their governments. The focus of this paper will be on the latter type of externality. Such an externality can be either horizontal or vertical, and we shall consider each in turn.

Horizontal Tax Externalities

Horizontal tax externalities may occur because of mobility of the tax base. For example, a decrease in province A's corporate income tax rate may induce capital to flow into province A and out of province B. The resultant contraction of B's tax base is a cost to B that A did not take into account when it made its tax policy decision. Consequently, if provinces neglect these costs, competition for mobile capital will put downward pressure on provincial tax rates. These tax rates will then become too low when compared to a national optimum.

The magnitude of the externality arising from tax competition also depends on how tax revenues are spent. Because tax revenues are used to finance some government expenditures that benefit businesses, businesses take them into consideration along with tax rates when making their investment decisions. Consequently, government expenditures provide another means by which provinces may compete for mobile capital. Since Canada is an open economy, pressures from tax competition arise at the international level as well. Consequently, if a provincial government or the federal government reduces its tax rate, capital may flow into Canada from abroad, depending, of course, on the crediting arrangements between countries. The recent reductions in statutory

⁸ See Dahlby and Wilson (1993), Dahlby (1995), Boadway and Keen (1996), and Boadway, Marchand and Vigneault (1996).

corporate tax rates in several countries may be seen as an indicator of the strength of the pressures exerted by international tax competition.

Counteracting the tendency for international competition to reduce tax rates are negative tax externalities imposed on foreign shareholders and foreign governments. The former occurs because the Canadian corporate income tax acts as a withholding device on income accruing to foreign shareholders. Thus, part of the burden of the Canadian corporate income tax is exported to citizens of other countries. For those countries that grant a foreign tax credit, part of the burden of the Canadian corporate income tax is exported to their governments. Since the federal and provincial governments likely do not consider the welfare of foreign shareholders or foreign governments when they choose their tax policies, this type of tax exportation provides an incentive to increase tax rates. It is important to note that tax crediting is not used in Canada as the method of eliminating double taxation of income earned in more than one province. Instead, a tax-allocation formula is used to allocate taxable income among the provinces. Recall from our discussion of the foreign tax credit in the corporate income tax that crediting for taxes paid in another jurisdiction can result in investment becoming insensitive to taxes levied there. As a result, competition to reduce statutory tax rates so as to attract mobile capital may not be as strong with crediting. Within Canada, however, tax competition occurs between the provinces because the tax-allocation formula does not eliminate the sensitivity of capital to differences in tax rates.⁹ Tax competition created by factor mobility has prompted several economists to argue that taxation of mobile factors should be restricted to the national level.¹⁰ Doing so would eliminate horizontal tax externalities within a nation. Thus, assigning the corporate income tax to the federal government would reduce the competition among the provinces that interferes with the efficient allocation of capital across the country.

⁹ The allocation formula uses two bases – gross revenues and payroll – to measure the proportion of total corporate activity carried on in a province. This has the effect of lessening the sensitivity of capital to differences in tax rates between provinces.

¹⁰ For example, see Gordon (1983), Musgrave (1983), and Boadway (1992).

Vertical Tax Externalities

A vertical tax externality occurs when one level of government's tax-policy choice affects another level's budget. This may arise when, for example, more than one level of government occupies the same tax field. Then, if the tax base is sensitive to the tax rate, an increase in one level's rate may reduce revenues collected by another level. As a result, part of the cost of raising tax revenues at one level is exported to the other. This constitutes a negative fiscal externality and tends to result in tax rates that are too high relative to a national optimum. This type of externality is more likely to arise from provincial behaviour, since an individual province perceives itself to be a smaller player in the federation than the federal government does. Consequently, it is less apt to take into account the effects of its decisions on the federal budget. As discussed earlier, the federal government may at least be able to reduce the negative fiscal externality arising at the provincial level, because it is likely to take into account how the provinces respond to its choices, although it may be costly to do so.

We can illustrate how this type of tax externality may occur in the corporate income tax system. Figure 1 shows the domestic supply of savings schedule, S , as a function of the rate of return to savings. The schedule, I , is the investment demand schedule that relates the demand for capital to the rate of return on marginal investments. The Figure also incorporates the fact that Canada is a net importer of capital and is a small player in the world capital market. Because of this, we assume that Canada is a price-taker in international capital markets and that the supply of savings is perfectly elastic at the foreign rate of return, r^* . Consequently, the openness of the economy separates the domestic savings and investment decisions. Without any taxes, the amount of domestic investment and savings are I_1 and S_1 , respectively. The supply of foreign savings is then $I_1 - S_1$.

We now introduce a corporate income tax levied at both the federal and provincial levels that raises the before-tax return on the marginal investment to \hat{r} and is distortionary. The difference between \hat{r} and r^* is the effective tax rate on investment, t , which incorporates all taxes levied on firms at both levels of government. Let t_f and t_p be the effective tax rates due to federal and provincial taxes, respectively. With the combined federal and provincial effective tax rate t , the level of investment falls to I_2 . The level of domestic savings remains unchanged at S_1 , and the level

of foreign savings falls to $I_2 - S_1$. The provincial government collects tax revenues equal to area $A + B$, and the federal government collects revenues equal to $C + D$.

Suppose now that a tax change occurs at the provincial level that raises t_p to t_p' , which reduces investment to I_3 . As a result of this change, the provincial government gains revenue equal to area E but loses revenue equal to area B . The federal government loses revenue equal to area D . The loss in federal revenues constitutes the tax externality, because it was not taken into account by the province when it made its decision to increase its tax rate.

Assigning separate tax fields to the two levels of government may not eliminate the externality, however. The reason for this is that different taxes often share portions of the same base. For example, income-based taxes overlap with consumption-based taxes, and the payroll tax base overlaps with the personal income tax base. An alternative remedy has been suggested by Dahlby (1995) and Boadway and Keen (1996). They show that transfers between levels of government can be used to correct for the distortion created by overlapping tax bases.

Our discussion so far has ignored one very important aspect of the Canadian fiscal system that provides an incentive for provinces to levy tax rates that are too high relative to a social optimum. Smart (1996) was the first to consider this in a paper that examines the implications of the equalization program used to correct for inequality in provincial tax capacities.¹¹ He shows that a "have-not" province perceives the efficiency cost of raising its corporate income tax rate to be lower than it actually is, because any reduction in taxable income results in an increase in the equalization entitlement.¹² This increase in the entitlement masks both the distortion affecting the province's and the federal's (i.e. the vertical tax externality) tax base. Consequently, this distortion

¹¹ The program uses a formula that equalizes "have-not" provinces up to the average of five representative provinces (Quebec, Ontario, Manitoba, Saskatchewan and British Columbia). The formula is applied to 37 revenue sources. To determine the entitlement for each province, the formula applies a national average tax rate to the difference between the representative base and the province's base. Only those provinces that have positive entitlement over the totality of the 37 revenue sources (i.e. the "have-not" provinces) benefit from the program.

¹² This assumes that the increase in the province's tax rate has a negligible impact on the average tax rate and representative base used in the equalization formula. If this is not the case, then the "have-not" provinces realize that an increase in their tax rate increases their equalization entitlement through an increase in the average national tax rate but decreases it through a reduction in the representative base (the latter occurs only if they are one of the five representative provinces).

caused by the equalization program is stronger than the vertical tax externality and leads "have-not" provinces to levy high tax rates. Note that the equalization program affects the "have" provinces only indirectly, because payments to the "have-not" provinces are funded out of general revenues.

A different vertical tax externality occurs if one level of government's taxes are creditable/deductible when calculating taxable income of another level. This represents a transfer of tax revenue from one level of government to another and is therefore a type of tax exportation that leads to over-use of the tax. In addition to the effects of deductibility on the level of taxation, a further inefficiency is created when some types of taxes are favoured over others, because they are creditable/deductible, whereas others are not. This essentially lowers the burden of that tax on a province's tax payers relative to other non-deductible taxes and therefore distorts the tax mix. Eliminating deductibility eliminates these inefficiencies.

Several economists, however, are in favour of deductibility of provincial taxes from federal taxable income.¹³ One argument for this is that, if a base is taxed by both levels and the tax is not used to provide benefits directly to provincial tax payers (i.e. it is not a benefit tax, but is, instead, an "ability-to-pay" tax), then the federal government should deduct the provincial tax from its taxable income, as this is meant to measure taxpayers' ability-to-pay. This argument, however, does not consider the fact that such deductibility creates tax externalities of the type described above.

3. Analysis of the Interaction of Federal and Provincial Taxes on Businesses

We now examine whether the interaction of federal and provincial taxes on businesses give rise to distortions either in the level or type of taxation or both. There are several provisions in the Canadian tax system that have the potential to do so. The most important of these are:

- (i) federal and provincial co-occupation of the corporate income tax field;

¹³ For a more detailed discussion, see Break (1980).

- (ii) taxes levied at one level of government that may be creditable/deductible for the purpose of calculating taxable income at another level;
- (iii) the treatment of one level of government's resource taxes under the tax system of the other level of government;
- (iv) the treatment of one level of government's tax incentives under the tax system of the other level of government; and
- (v) the tax treatment of Crown corporations.

Before we examine these provisions in greater detail, it is important to mention at the outset that the magnitudes of the distortions in the tax system depend on the entire fiscal relationship between the federal and provincial governments. This relationship is continuously changing in ways that may enhance or diminish these distortions. Of particular importance for this are the trend toward greater decentralization to the provinces of expenditure responsibilities and taxing powers, and the reduction in federal transfers to the provinces as a means of reducing the deficit.

(i) Federal and Provincial Co-occupation of the Corporate Income Tax Field

Both the federal and provincial governments levy a tax on corporate income. The federal government has agreed to abate its corporate income tax by 10 percentage points, so as to allow the provinces room to levy their own tax. Quebec, Ontario and Alberta administer their own tax, and the remaining provinces have a tax collection agreement (TCA) with the federal government. Under this agreement, the federal government collects the tax in the participating provinces if they use the federal tax base. The provincial tax is levied on federal taxable income, and the provinces are free to choose their own rates. Also included in the TCA is the provision allowing provinces non-discriminatory tax credits. The tax bases of the non-participating provinces are similar to the federal one, and any differences between them arise primarily from special deductions and credits.

The TCA was introduced in 1962, and all provinces except Ontario and Quebec participated in it. The federal government abated its tax by 9 percentage points and all participating provinces took up the tax room thus made available. Manitoba and Saskatchewan, in fact, went beyond this and

levied a rate of 10 percent. In 1967, the federal abatement was increased by 1 percent and all provinces except Quebec increased their rates by 1 percent also.

Until 1975, the provinces levied one flat rate, and the federal government levied different rates for small and large firms. In 1975, British Columbia introduced a reduced rate for small businesses and raised its general rate from 12 to 13 percent. This decision by British Columbia was soon copied by other provinces and, by 1981, all provinces except Prince Edward Island had a differential rate structure. Rates for small businesses and favoured industries were (and still are) lower than the federal abatement, but the general rates were (and still are) above it. The most dramatic change was made by Quebec in 1981, when it introduced a lower rate of 3 percent for small businesses. Significantly, the explanation provided for such a dramatic change was that it was required to reduce capital flight from the province.

As part of the 1987 tax reform, the federal government lowered and simplified personal and corporate income tax rates and broadened the tax base. Table 1 shows that the response of the provinces to the reduction in the general and small-business federal corporate income tax rates for the years 1987 to 1995 has been mixed. Following the tax reform, those provinces that increased their rates, however, did not do so to the extent that the combined federal-provincial rates were thereby increased.

The structure of the Canadian corporate income tax system reflects an attempt to maintain some degree of uniformity while allowing the provinces some flexibility in their choice of tax policies. Uniformity is reflected in the use of a common tax base in the TCA and, for the non-participating provinces, one that is similar to that of the federal government. In addition, all provinces use the same formula to allocate corporate income earned in more than one province. Flexibility is reflected in the ability of the provinces to set their own rates and to provide special tax credits. This flexibility, however, can give rise to tax externalities of the type described in Section 2.2. Both horizontal and vertical externalities may occur in the corporate income tax system, because the federal and provincial governments co-occupy the corporate income tax field and the provinces are able to levy their own rates.

Horizontal Tax Externalities

The corporate income tax base is a mobile one, both within Canada and between Canada and the rest of the world. Section 2.2 described a horizontal tax externality that occurs when governments at the same level compete for a mobile tax base. The provincial corporate income tax fits this scenario. It is likely, then, that pressures exist for the provincial governments to reduce their rates so as to reduce capital flight.

Related practices are the granting of tax holidays to newly incorporated firms and tax credits to encourage investment in various activities. Both serve to differentiate one province's tax structure from another's and, as a result, interfere with the efficient allocation of capital within the country. Corporate tax revenues at both the federal and provincial levels are thus affected by these practices.

Given that the federal government's share of total corporate income tax revenues is diminishing, we should expect that pressures from tax competition between the provinces will become stronger if this trend continues. A diminished federal presence is likely to enhance the incentive for the provinces to engage in beggar-thy-neighbour policies that are disharmonizing and interfere with the efficient allocation of resources.

The situation in Canada wherein the provinces assume a large and growing importance in the corporate income tax field runs counter to the "rule" for tax assignment specifying that lower levels of government should not levy "ability-to-pay" type taxes on mobile factors such as capital. The situation is similar in the United States, because the states face no constitutional constraints in levying income taxes. In the United States, however, there is significantly less tax co-ordination between the federal and state levels. For example, there is no tax-collection agreement between them, as there is in Canada. Consequently, the state corporate income tax systems are less harmonized than they are in Canada. By contrast to both Canada and the United States, the states in Australia are constitutionally forbidden access to the corporate income tax field.

Counteracting the pressures from tax competition to reduce corporate income tax rates is the need for withholding described in Section 2.1. In addition, the need for withholding against income earned by foreign shareholders is the source of another inefficiency that was described in

Section 2.2, and is caused by the incentive to export part of the burden of the corporate income tax to foreign residents or governments. Recall that this incentive has also been used as a justification for the existence of corporate income taxes. The fact that Canadian rates are positive and relatively high indicates that this externality may be present alongside the one that is responsible for tax competition.

Vertical Tax Externalities

Also described in Section 2.2 is the vertical externality arising from co-occupation of the same tax base. Given that an individual province is likely to consider itself a smaller player within the federation than the federal government, it may make its tax-rate choice without accounting for its effect on the federal government's budget. The province then underestimates the cost of its choice and levies a tax rate that is too high relative to a national optimum. Bev Dahlby (1994) has provided evidence that this type of distortion is significant in the Canadian personal income tax, especially for provincial surtaxes. Note that this externality may also arise because of federal government behaviour. However, since the federal government is a large player within the federation, it seems more plausible that it does take into consideration the effect of its decisions on the provinces and also considers how they may react to them.

It is important to note that the diminished importance of the federal government in the corporate income tax field has likely reduced the magnitude of this type of vertical tax externality. The reason for this is that, for a given level of investment, a lower federal share of corporate tax revenues reduces the ability of the provinces to shift part of the burden of their corporate income tax onto the federal government. Indeed, if either level of government reduced their tax rate to zero, the vertical fiscal externality would be eliminated.

Provincial Response to a Change in the Federal Corporate Income Tax Rate

The discussion so far has focussed on fiscal externalities that are created by federal and provincial co-occupation of the corporate income tax field. The magnitudes of these externalities are established given the policies chosen by other governments. To determine

the effects of tax policy changes, however, we must consider how the governments respond to one another's choices.

To illustrate this, suppose we consider how the provinces would respond to a reduction in the federal corporate income tax rate. The issue is whether the federal government has to be concerned that the provinces would offset the reduction in the federal rate by increasing their rates.

The corporate income tax base is sensitive to changes in the combined federal-provincial tax rate, and this sensitivity is likely to increase as that rate increases. The provinces are aware of this when choosing their rates. Thus, if the federal government reduces its tax rate, the provincial rates may no longer be optimal, and the provinces will therefore change them. Given the initial provincial rates, a reduction in the federal one provides the provinces with more tax room and may result in an increase in the corporate income tax base. These two effects constitute an incentive for the provinces to increase their rates.

Also important for the incentive just described is the fact that, for an open economy such as Canada's, the amount of tax room available is constrained by international levels. The provinces take this overall level into account when choosing their rates. A reduction in the federal rate relaxes the constraint on available tax room and therefore induces the provinces to raise their rates.

It is likely, then, that the provinces would respond to a reduction in the federal tax rate by increasing theirs. However, it may be reasonable to assume that the incentive for them to do so may not be so strong as to result in an increase in the combined federal-provincial rates. Indeed, this has been demonstrated with respect to the 1987 tax reform. We now consider the manner in which the federal government makes up its revenue loss, since this affects revenues collected by the provinces. It is obviously difficult to examine in detail all revenue-neutral tax changes available to the government, and we therefore consider only general ones. First, any incentive for the provinces to increase their rates will be weaker if the federal government makes up for the loss in revenue by broadening the corporate income tax base. The reason for this is that the provincial tax base is the same as the federal one for those provinces participating in TCA and there has been

a tendency for the non-participating provinces to also adopt federal changes to the base. However, if the federal government makes up for the loss in revenue by, for example, eliminating deductibility of provincial payroll and capital taxes – an issue that will be discussed in more detail below – then the incentive for the provinces to increase their tax rates may be stronger, because the bias in favour of deductible taxes is eliminated. The incentive to increase rates would also arise if the federal government makes up its revenue loss by reducing transfers to the provinces. The provinces may then seek to offset the reduction in transfers by raising their rates.

In summary, it is likely that the federal government can achieve an overall reduction in corporate income tax rates by lowering its rate. The provinces may respond by increasing their rates, but not to the extent that the combined federal-provincial rates consequently increase. Furthermore, the overall reduction in rates will be larger if the federal government offsets its revenue loss by broadening the corporate income tax base in a way that simultaneously expands provincial revenues.

(ii) Deductibility of One Level's Taxes from Taxable Income of Another Level

In Canada, provincial capital and payroll taxes are deductible when calculating federal corporate taxable income. An interim measure is currently in place until a final solution addressing deductibility has been implemented. The interim measure denies deductibility of any increases in provincial payroll and capital taxes for those provinces that have not harmonized their sales taxes with the federal Goods and Services Tax (GST). Section 2.2 explained that deductibility of provincial taxes is a type of tax exportation, because part of the burden of the provincial tax is shifted to the federal government. This creates a bias in favour of the deductible tax and erodes the federal tax base. We are not aware of any empirical studies of the effects of deductibility in Canada. However, for the United States, Feldstein and Metcalf (1987) found that deductibility of state and local taxes have substantially increased their use. In Canada, the federal government has shown concern that deductibility may indeed have led provinces to rely more heavily on these types of taxes. Such concern prompted the federal government in 1976 to eliminate deductibility of provincial resource royalties from the federal corporate income tax and to replace it with a resource allowance. In addition, as already described above, the rapid growth in provincial payroll

and capital tax revenues has led the federal government to deny deductibility of any increases in them. A possible consequence of eliminating deductibility is a change in the provincial tax mix in favour of other taxes such as the corporate income tax.

(iii) The Tax Treatment of Natural Resources

The *Constitution Act*, 1867, assigned ownership of natural resources to the provinces. The provinces were, however, prohibited from levying indirect taxes such as royalties on natural resources, except for the use of resources from Crown property. In 1982, that Act was amended to allow provinces to levy indirect taxes on natural resources. Thus, with the passage of the *Constitution Act*, 1982, the provinces now levy royalties and other taxes on privately owned resources in the same way as resources from Crown land. The *Constitution Act*, 1867 also grants the federal government the power to tax natural resources through its general taxing power. As a result of this shared power to tax natural resources, there is considerable interaction between the tax systems of the two levels of government.

Both the federal and provincial governments levy a corporate income tax on all resource firms except for some in the electricity industry.¹⁴ The federal corporate income tax paid by resource industries resembles that for firms in other industries. There are differences, however, in the inclusion of special provisions for expenses and the resource allowance introduced to compensate for the elimination of deductibility of provincial royalties. The provincial corporate income tax paid by resource industries resembles the federal one. However, a significant difference is that Alberta, Saskatchewan and British Columbia allow deductibility or crediting of royalties and mining taxes in excess of the federal resource allowance.

In addition to the corporate income tax, the provinces levy a host of different resource taxes with special deductions and allowances that vary among industries and between provinces, and attempt to capture a share of the rents generated by the resource industries. For example, the oil and gas industries (primarily in Alberta, British Columbia and Saskatchewan) pay royalties, and

¹⁴ Electricity is supplied by Crown corporations in all provinces except Alberta and Prince Edward Island. Resource rents are transferred to consumers through the regulation of electricity prices.

exploration and development rights may be sold by provincial auction. The method of assessing royalties varies among the provinces according to whether the rate is applied to production, revenues, or both. The mining industries pay profits taxes (except in British Columbia and Saskatchewan), cash flow taxes (in British Columbia and Saskatchewan), and minimum taxes (in Saskatchewan, British Columbia, Alberta, New Brunswick and Nova Scotia). Firms in the forestry industry pay stumpage fees, and in Quebec and British Columbia a logging profits tax is also applied.

We now consider the implications of the interaction between federal and provincial taxes on natural resource firms. First, the sizable rents generated by resource industries provide incentives for both levels of government to compete for these rents using their taxing powers. This vertical tax competition can result in excessive taxation of the resource and suboptimal revenues collected by both levels of government.¹⁵ Conflict between the two levels of government regarding which level has the right to tax resources surfaced in the 1970s during the energy crisis. It is true that the amendment to the Constitution has clarified the provinces' rights in this area, but it has not clarified how rents are to be shared between the two levels. Consequently, should another shock to international commodity markets occur, it is likely that conflict between the two levels will resurface.

The issue of which level of government should have access to natural resource rents is a complicated one. Because natural resources are immobile, they satisfy one "rule" for tax assignment in that generally lower-level governments should tax those factors that have lower interjurisdictional mobility.¹⁶ However, inefficiencies are created by the highly unequal distribution of resources across provinces. Because the provinces own and have the constitutional right to tax natural resources in their respective provinces, there is considerable variation between the provinces in access to resource revenues. Consequently, differences in net fiscal benefits (the difference between what individuals pay in taxes and what they receive in public goods and services) exist between the provinces. Given that labour is somewhat mobile between provinces,

¹⁵ This has also been a concern in Australia. Like the provinces in Canada, states in Australia have been granted ownership of natural resources.

¹⁶ For example, see Musgrave (1983).

differences in net fiscal benefits interfere with the efficient allocation of labour across the country. The equalization program does not correct for this because Alberta is excluded from the five province standard in the equalization program. In addition, variations in resource revenues in "have-not" provinces affect federal transfers to these provinces.

A further issue is that provinces that have market power over the price of commodities can use tax policies to increase world prices. This harms international and domestic consumers. Note, however, that the federal government has exclusive responsibility for matters pertaining to international trade. Thus, provincial tax policies vis-à-vis natural resources have the potential to impinge on federal trade policies.

The co-occupation of the corporate income tax field gives rise to the same distortions arising from horizontal and vertical externalities in the resource industries as was described earlier. The main difference between resource and other industries occurs with the provincial resource taxes. Because of the variety of taxes, exemptions and special deductions, it is difficult to identify all the inefficiencies that they create. However, because some provincial resource tax bases interact with the income tax base, there is potential for considerable interaction between these taxes and the federal corporate income tax. Consequently, inefficiencies arising from overlapping tax bases and deductibility/crediting are likely to occur with the provincial resource taxes.

*(iv) The Treatment of One Level of Government's Tax Incentives
Under the Tax System of the Other Level of Government*

Both the federal and provincial governments offer a variety of tax incentives to firms. Examples of federal incentives include an investment tax credit for firms located in the Atlantic provinces and the Gaspé region, and for firms engaged in research and development, a corporate tax reduction on manufacturing and processing profits, and a small business tax deduction for Canadian-controlled private corporations. The provinces offer a large range of incentives that include corporate tax holidays; tax deductions for small firms and firms engaged in manufacturing and processing; and tax credits to encourage scientific research and investment by private-venture

capital corporations in provincial companies.¹⁷ A primary objective for a province when granting tax assistance to firms is to differentiate its tax structure from those of other provinces in a way that encourages investment in specific activities. The federal government shares the latter part of this objective when employing its own incentives. However, it wishes to discourage the employment of discriminatory tax incentives (although it employs its own incentives to encourage investment in slow-growth regions). By favouring some firms and regions over others, tax incentives distort the allocation of resources across industries and across provinces. Our aim in this section is to examine how the overall efficiency of the tax system is affected by the interaction of tax incentives between the two levels of government.

When the federal and provincial governments provide similar assistance to firms, the assistance of the two levels of government necessarily overlaps, and this further reduces the efficiency of the tax system. The federal government may therefore wish to offset provincial assistance with a reduction in its own. The federal government does offset (at least partially) some but not all provincial tax incentives. For example, some provincial assistance for research and development expenditures reduces the qualifying amount for the federal investment tax credit. In addition, other types of provincial incentives may be included as taxable income at the federal level, independently of whether the federal government has a similar incentive. Such behaviour on the part of the federal government reduces the effectiveness of provincial tax incentives and thus reduces the desire for the provinces to employ them.

Provincial tax assistance to firms that takes the form of a reduced corporate income tax rate or a tax holiday is not as easily offset by the federal government. The provinces, whether they participate in the TCA or not, are free to choose their own corporate income tax rates, and the federal tax abatement for provincial corporate taxes is independent of actual taxes paid to a province. The federal government may wish to discourage the provinces from employing beggar-thy-neighbour tax policies by modifying its own rate to offset provincial measures.

¹⁷ Recall that provinces participating in the TCA are allowed non-discriminatory tax credits. In practice, however, provinces have been allowed credits that can be described as discriminatory.

However, this would require that its rate vary between provinces and between firms within a province and would seemingly be difficult to do.

(v) The Tax Treatment of Crown Corporations

The tax treatment of Crown corporations in Canada creates both vertical and horizontal externalities. Crown corporations established by one level of government are exempt from taxation by other governments. This provides an incentive to take over private corporations, so as to appropriate tax revenues that would have accrued to the other level of government.

Crown corporations also create horizontal inefficiencies when provinces differ among themselves with regard to whether corporations are privately or publicly owned. For example, provincial Crown corporations may be able to provide goods and services at low cost, because they do not have to pay federal taxes and because their objective is not to earn a market rate of return on investments. If the goods and services are used as inputs in other industries, then provinces can use such Crown corporations to attract firms. This is especially important for the utilities sector.

4. Conclusion and Recommendations

Our discussion has examined the distortions created by the interaction of federal and provincial taxes on businesses. Given the importance of both levels of government in the major tax fields, the distortions arising from interactions between the two levels are likely to be large. The most important tax on businesses in Canada is the corporate income tax. One frequently encounters in the literature the argument that corporate income tax rates in small open economies such as Canada's should by competitive action approach zero because of the high mobility of capital. This is definitely not the case in Canada. Our discussion has identified reasons why governments have an incentive to levy positive corporate income tax rates, and we summarize them below. Then, we identify ways in which the distortions arising from the interaction of federal and provincial taxes on businesses can be reduced or eliminated.

Reasons for Positive Canadian Corporate Income Tax Rates

- (1) The supply of capital may be less than perfectly elastic.
- (2) Capital-exporting countries often provide a foreign tax credit to avoid double taxation. By taxing income accruing to foreigners, capital-importing countries then gain tax revenues at the expense of foreign governments.
- (3) High tax rates can reflect the fact that some investment is costly to reverse. In such instances, taxation may be non-distortionary.
- (4) The equalization program provides an incentive for "have-not" provinces to levy high tax rates because increases in equalization transfers insulate their tax bases from changes in their own rates.
- (5) The vertical overlap of tax bases creates an incentive for provinces to shift part of the burden of tax increases onto the federal government.

Recommendations

- 1) Since capital is highly mobile, tax competition among the provinces can create significant distortions that are disharmonizing and interfere with the efficient allocation of capital within the federation. Competition arises despite the TCA because the provinces are permitted to choose their own rates, and to grant special credits and deductions that serve to differentiate one province vis-à-vis another. One way to eliminate inefficiencies arising from tax competition is to assign the corporate income tax solely to the federal government. This is obviously not a feasible option in Canada. However, these inefficiencies can be minimized by the federal government assuming a more dominant role in the corporate income tax field while maintaining a TCA with the provinces. The provinces are more likely to agree to a diminished role in the corporate income tax if they are compensated with additional tax room in another tax field. One possibility to consider would be to transfer tax points from the GST to the provinces.

- 2) The distortion arising from the vertical overlap of the same tax base cannot easily be eliminated because of the interactions between different tax bases. However, in light of recommendation (1), it is best to assign the corporate income tax field to the federal government, or, at the very least, to maintain a dominant federal role.
- 3) Deductibility of provincial payroll and capital taxes from federal taxable income should be eliminated. Deductibility erodes the federal tax base and creates a bias in favour of the deductible tax.
- 4) The federal government should not attempt to make up the loss in revenues to the provinces from elimination of deductibility of provincial payroll and capital taxes by increasing the corporate income tax abatement. Doing so would reduce the importance of the federal government in the corporate income tax field and would run counter to recommendations (1) and (2). The revenue loss should, instead, be made up by broadening the tax base in a way that is passed on to the provinces.
- 5) The five-province-standard equalization program provides an incentive for "have-not" provinces to levy high tax rates because any reduction in the tax base resulting from an increase in the province's tax rate is offset by an increase in its equalization transfer. This incentive arises because the transfer is a function of the province's actual base. One remedy for this would be to make equalization transfers a function of a province's potential tax base. Doing so would remove the influence of transfers on a province's tax effort.
- 6) There are four issues in the area of taxation of natural resources that create the potential for conflict between the two levels of government: (i) the provinces have been assigned ownership of natural resources and have the right to tax them; (ii) the federal government has the right to tax resource industries through its general taxing powers; (iii) the federal government has exclusive authority in matters of international trade; and (iv) the *Constitution Act*, 1982 commits both levels of government to the principle of equalization. As a general recommendation, negotiations between the provinces and the federal government should take place regarding the sharing of natural resource tax revenues. In addition, the present equalization program needs improvement for the following reasons. First, primarily because Alberta is not included in the five province standard, full equalization of resource revenues is

not achieved. Second, the program discriminates against "have-not" provinces because their resource revenues are fully equalized. Third, the program employs a gross rather than net equalization formula. Lastly, equalization transfers should ideally be a function of the provinces' potential rather than actual bases.

- 7) The fact that natural resource endowments are unequally distributed among the provinces creates the potential for mobile factors to locate in resource-rich provinces because of differences in fiscal capacity. Federal government control of resource taxes would eliminate this. However, given that the provinces have been assigned ownership of resources and have the right to tax resource industries, this option is not feasible. An alternative is an equalization program that properly equalizes resource revenues. Thus, the problems with the current program outlined in recommendation (6) need to be solved.
- 8) The exemption of Crown corporations from taxation by other governments leads to differential tax treatment of private and public firms and provides an incentive for governments to take over private companies. One remedy for this would be to assign separate tax fields to the two levels of government and to allow taxation of Crown corporations by both levels.

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FIGURE 1

Vertical Tax Externality in Corporate Income Tax

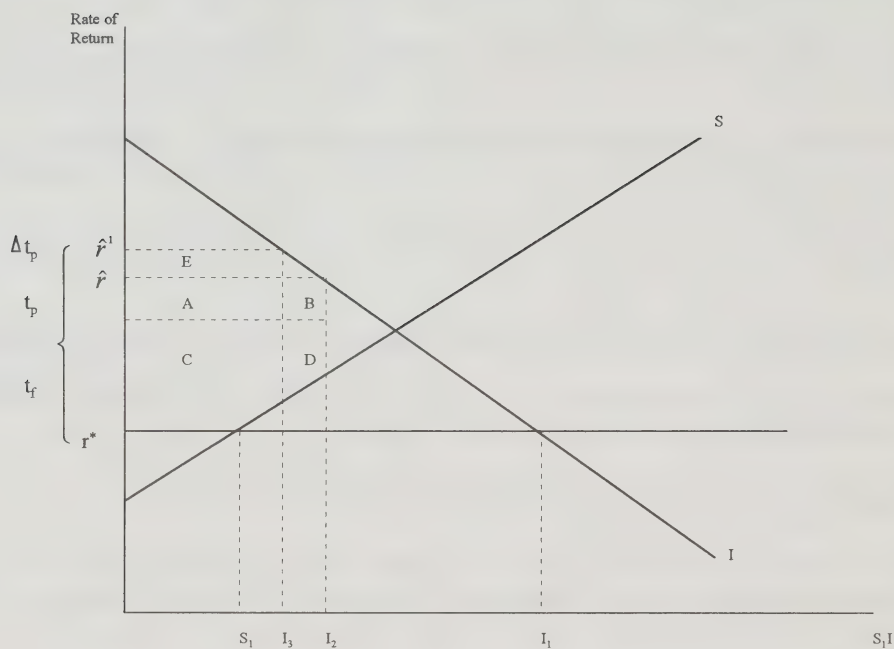


TABLE 1

Federal and Provincial Corporate Income Tax Rates, 1987-95

Year	Federal	Nfld.	PEI	NS	NB	Que.*	Ont.	Man.	Sask.	Alta.	BC
1987	G 36.57 S 14.94	G 16.00 S 10.00	G 15.00 S 10.00	G 15.00 S 10.00	G 15.00 S 5.00	G 5.9/ 13.94 S 3.22	G 15.50 S 10.00	G 17.00 S 10.00	G 17.00 S 10.00	G 14.01 S 5.00	G 15.00 S 9.51
1988	G 32.45 S 13.39	G 16.00 S 10.00	G 15.00 S 10.00	G 15.00 S 10.00	G 16.00 S 5.00	G 5.9/ 13.94 S 3.22	G 15.50 S 10.00	G 17.00 S 10.00	G 15.00 S 10.00	G 15.00 S 5.00	G 14.00 S 10.00
1989	G 28.84 S 12.84	G 16.50 S 10.00	G 15.00 S 10.00	G 15.00 S 10.00	G 16.00 S 9.00	G 6.16/ 14.56 S 3.36	G 15.50 S 10.00	G 17.00 S 10.00	G 15.00 S 10.00	G 15.00 S 5.00	G 14.00 S 9.00
1990	G 28.84 S 12.84	G 17.00 S 10.00	G 15.00 S 10.00	G 16.00 S 10.00	G 16.00 S 9.00	G 6.33/ 14.95 S 3.45	G 15.50 S 10.00	G 17.00 S 10.00	G 15.00 S 10.00	G 15.00 S 6.00	G 14.00 S 9.00
1991	G 28.84 S 12.84	G 17.00 S 10.00	G 15.00 S 10.00	G 16.00 S 10.00	G 17.00 S 9.00	G 6.33/ 14.95 S 3.45	G 15.50 S 10.00	G 17.00 S 10.00	G 15.00 S 10.00	G 15.50 S 6.00	G 15.00 S 9.00
1992	G 28.84 S 12.84	G 17.00 S 10.00	G 15.00 S 10.00	G 16.00 S 5.00	G 17.00 S 9.00	G 8.9/ 16.25 S 5.75	G 15.50 S 9.50	G 17.00 S 10.00	G 17.00 S 10.00	G 15.50 S 6.00	G 16.50 S 9.00
1993	G 28.84 S 12.84	G 16.00 S 5.00	G 15.00 S 7.50	G 16.00 S 5.00	G 17.00 S 9.00	G 8.9/ 16.25 S 5.75	G 15.50 S 9.50	G 17.00 S 10.00	G 17.00 S 9.00	G 15.50 S 6.00	G 16.50 S 10.00
1994	G 28.84 S 12.84	G 16.00 S 5.00	G 15.00 S 7.50	G 16.00 S 5.00	G 17.00 S 9.00	G 8.9/ 16.25 S 5.75	G 15.50 S 9.50	G 17.00 S 9.50	G 17.00 S 8.50	G 15.50 S 6.00	G 16.50 S 10.00
1995	G 29.12 S 13.12	G 14.00 S 5.00	G 15.00 S 7.50	G 16.00 S 5.00	G 17.00 S 7.00	G 8.9/ 16.25 S 5.75	G 15.50 S 9.50	G 17.00 S 9.00	G 17.00 S 8.00	G 15.50 S 6.00	G 16.50 S 10.00

G: general rate

S: small business rate

Sources: *The National Finances*, Canadian Tax Foundation, 1991
Finances of the Nation, Canadian Tax Foundation, 1995

* The lower general rate in Quebec is on active business income that is not subject to the federal small-business deduction and excludes investment income, income from a personal service corporation, and specified investment business income. The higher rate is on non-active business income.

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

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The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

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Technical Committee on Business Taxation Completed Research Studies

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Why Tax Corporations

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Taxation of Inbound Investment

Gordon Williamson (Arthur Andersen, Toronto)

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Publications

Taxation of Inbound Investment

W.G. Williamson, CA
R.A. Garland, CA
Arthur Andersen, Toronto

December 1996

WORKING PAPER 96-12

Prepared for the
Technical Committee on Business Taxation

Working papers are circulated to make analytic work prepared for the
Technical Committee on Business Taxation available.
They have received only limited evaluation; views expressed are those of the authors
and do not necessarily reflect the views of the Technical Committee.

Taxation of Inbound Investment

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December 1996

WORKING PAPER 96-12

Prepared for the
Technical Committee on Business Taxation

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Abstract

The purpose of this paper is to review the factors inherent in the Canadian income tax system that impact directly on inbound investment, including, in particular, the Canadian withholding tax and thin capitalization provisions. This paper discusses the objectives of such provisions, as well as their impact on foreign investment, and compares the Canadian income tax regime with respect to such factors to those of the United Kingdom, the United States, Germany, Australia and the Netherlands.

This paper attempts to assess whether the existing Canadian income tax regime meets its implicit objectives, and whether there are alternative approaches that could provide more equitable results.

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In order to provide a conceptual framework against which the existing Canadian income tax regime can be measured, it is assumed that the underlying objectives of an income tax regime, as it applies to inbound investment, should be as follows:

- The tax regime should be neutral, in that it should not unduly impact the structure or form of investment;
- The tax regime should promote economic development and job creation;
- The tax regime should be structured in a manner that preserves and protects the Canadian tax base;
- The tax regime should ensure that profits from foreign investments bear the same taxation burden as domestic investment, so that foreign investment is not placed at a competitive advantage or disadvantage vis-à-vis domestic investment; and
- The tax regime should be structured with a view towards simplicity, as well as enforceability.

Recommendations

Withholding Taxes

1. It is recommended that intercorporate dividend withholding taxes be reduced or eliminated.

High tax rates are often cited as an impediment to business investment. This is particularly true for foreign investors. Foreign jurisdictions typically provide for either exemption from domestic tax on distributions from a Canadian subsidiary, or a credit for both the Canadian underlying tax and the withholding tax on such dividends. In the case of a jurisdiction with an exemption system, Canadian taxes in aggregate represent a cost. In credit systems, generally speaking, Canadian taxes in excess of the basic foreign tax rate represent a cost.

In either case, it is the aggregate of underlying corporate and dividend withholding tax rates that is relevant.

To the extent that aggregate Canadian tax rates exceed the tax rate in the foreign jurisdiction, it is likely that the Canadian tax rates would be viewed as an impediment to business investment. As such, a lowering of Canadian tax rates may promote investment in Canada. The withholding tax rate reduction should be accomplished through bilateral tax treaty negotiations, so that Canadian-based multinational companies can benefit from negotiated bilateral agreements to reduce withholding taxes on dividends.

2. It is recommended that the existing exemption from withholding taxes on interest payments to arm's-length lenders on long-term debt be expanded to apply to all arm's-length debt.

In the other countries surveyed, arm's-length interest payments are generally exempt from withholding taxes either under domestic law or by treaty. It is submitted that there is no basis upon which to restrict such an exemption to long-term debt.

Withholding tax on arm's-length debt generally results in an incremental cost to Canadian business; as such, withholding tax is generally passed on to the debtor through higher

interest rates. An elimination of withholding tax on all arm's-length debt would provide Canadian business with access to global financial markets at competitive interest rates.

Thin Capitalization

1. It is recommended that thin capitalization provisions be amended so that the test of whether a corporation is thinly capitalized is based on the debt-to-equity level of the debtor company as a whole, rather than including only the debt and equity of specified non-resident investors.

It is submitted that a corporation cannot be considered to be thinly capitalized based solely on a consideration of the mix of debt and equity provided by non-resident shareholders. Thin capitalization provisions should be designed to prevent non-commercial levels of leverage of Canadian subsidiaries of foreign-based enterprises. An arm's-length lender would not base a lending decision solely on the debt-to-equity ratio of a specified non-resident shareholder. Rather, an arm's-length lender would base such a decision on the creditworthiness of the debtor company as a whole. Thin capitalization provisions should operate in a similar manner.

2. It is recommended that a deficit should reduce the measure of equity for purposes of thin capitalization provisions.

There does not appear to be any basis for excluding a deficit from the determination of equity in determining if a corporation is thinly capitalized. A commercial lender would certainly consider a deficit in making a lending decision.

3. Thin capitalization provisions should include all equity, not just equity provided by non-resident shareholders.

The existing provisions include only the equity owned by specified non-resident shareholders. As a result, it may not be possible for a non-resident shareholder to loan money directly to a second- or lower-tier Canadian subsidiary. As a result, the non-resident shareholder may be required to loan to the first-tier Canadian corporation, with this entity in turn loaning to the lower-tier subsidiary. However, for commercial reasons, this may not always be possible.

Such a change could be effected by basing thin capitalization provisions on the total equity of the debtor, rather than just the equity held by non-residents. In order to prevent double counting of equity (i.e. a cascading effect), the equity of a debtor could be reduced by the amount of its investment in other Canadian companies.

4. It is recommended that thin capitalization provisions be based on an average debt level, rather than the highest point in the year.

It is submitted that using the highest debt level in the year is unnecessarily punitive. A high level of debt may be necessitated by a refinancing or other transaction. However, if the high debt level is only outstanding for a very short period of time, an inappropriate level of interest may be disallowed under the existing provisions.

5. It is recommended that the existing back-to-back loan provisions be tightened.

Currently, the back-to-back loan provisions apply only in very limited circumstances. It would be reasonable for such provisions to apply to any form of back-to-back financing, as is the case in the proposed legislation in Australia.

6. It is recommended that thin capitalization provisions apply to branches of foreign corporations.

In Australia, the U.K. and U.S., thin capitalization provisions apply to branches of foreign corporations as well as to domestic corporations. It would appear that there is no rational basis for applying thin capitalization provisions to subsidiaries but not to branches.

Situation Analysis

Reliance on Foreign Investment

For numerous reasons (which are beyond the scope of this paper), Canada has traditionally relied heavily on foreign investment.

As a result, it is important that Canada provide an environment that will foster and encourage ongoing foreign investment. There are numerous factors that an investor may consider in evaluating a potential market, including:

- political stability;
- economic stability;
- availability and capability of labour;
- infrastructure;
- proximity to markets;
- language and cultural considerations;
- level of government and level of government debt; and
- level of taxation.

An evaluation of the relative importance of each of the above factors is beyond the scope of this paper. Furthermore, an investment decision would probably not be influenced by any one of the above factors alone, but rather would be based on an overall evaluation of all factors.

Although it is acknowledged that the level of taxation and the taxation regime, with respect to foreign inbound investment, would not necessarily be a determining factor in an investment decision, it is believed that the level of taxation is a significant factor in such a decision. Accordingly, it is imperative that, if Canada is to continue to rely heavily on foreign investment, the Canadian income tax regime must foster and encourage such investment.

Foreign investment in Canada plays an important role in, and contributes many benefits to, the Canadian economy. Foreign investment results in development of the Canadian economy and the creation of jobs within Canada. In addition, foreign investment supports the Canadian tax base, regardless of the level of tax that is paid on business profits. The tax base is supported by numerous indirect taxes, as well as direct taxation of employees' income.

Taxation Regime

As noted above, there are a number of factors that an investor will consider in evaluating an investment opportunity, including the level of taxation. A business enterprise is subject to numerous direct and indirect taxes, e.g. payroll taxes, health levies, property taxes, capital taxes, sales taxes, direct tax on income and, in addition, in the case of a non-resident investor, withholding tax on distribution of income. It is beyond the scope of this paper to discuss all of these taxes; the focus of this paper is on the Canadian income tax regime as it applies to non-resident investors. However, it is noteworthy that the overall level of taxation (including direct and indirect taxes) may be a significant factor in influencing an investor's decision.

In many cases, the aggregate level of domestic taxation and foreign taxation on business profits could result in an unacceptable overall tax burden on the profits of an enterprise. In many situations, the domestic country legislation of the foreign investor and income tax treaties may give full or partial relief from economic double taxation on business profits. An important factor in an evaluation of the overall level of taxation on business income is the manner in which such income is taxed on repatriation to the foreign parent. Although a rigorous discussion of the treaty and foreign tax implications is beyond the scope of this paper, some general observations regarding treaty provisions are made.

Competition with Other Markets

Historically, Canada's economy has depended to a large extent on activity in the natural resources, agricultural and fisheries markets, with a significant contribution by manufacturing industries. In these sectors, investment decisions have often been driven by factors other than those noted above. For example, significant mining activity has been concentrated in Canada due to the abundance of natural resources. Obviously, if a mineral deposit is located in a certain geographic region, the mine must be located there as well. Similarly, manufacturing operations were historically located in proximity to the ultimate consumer market, partly because of tariff barriers, which have since been reduced or eliminated, and partly because adequate and economic transportation resources were not available to facilitate the manufacturing operation being situated in a different geographic region.

Some of the factors that would have led to investment in Canada in the past now have less influence on investment decisions. Political stability and economic development in other regions of the world have made such regions attractive alternatives to Canada. Traditional tariff barriers have been reduced or eliminated. In addition, developing technology and transportation infrastructures have made other locations more economically attractive than in the past.

In many respects, compared to other countries, Canada is at a competitive disadvantage in attracting foreign investment. Canada's geographic size and relatively small population may make it a less-attractive alternative for a manufacturing facility than other markets (such as the U.S.) which are more densely populated, resulting in enhanced marketability of products. In addition, other factors, including the climate, the availability of skilled labour, and the cost of doing business, may influence investment decisions.

Canada competes with many other markets in attracting foreign investment. For investment from the U.S. (a source of a substantial portion of foreign investment), Canada may compete against other U.S. locations, which, from a taxation perspective, may offer less costly tax attributes. For European and Asian investment in Canada's North America, Canada competes primarily with the United States. Given some of Canada's inherent competitive disadvantages, (such as climate and geographic location), Canada needs to offer a tax regime and economic environment that will foster foreign investment.

Focus of Paper

As noted above, this paper focusses on providing an overview and discussion of the Canadian income tax regime as it applies to inbound investment. Discussion is based on a comparison of the Canadian income tax regime with that of other major industrialized countries. Observations are made based on the implicit objectives of the taxation system as outlined above, these being simplicity, fairness, promotion of economic development and job creation, preservation of the Canadian tax base, and neutrality.

It is beyond the scope of this paper to discuss all aspects of the Canadian income tax regime as it applies to inbound investment. This paper discusses, in particular, issues with respect to withholding taxes and thin capitalization provisions. As appropriate, observations are made on other issues.

Withholding Taxes

Canada Compared to Other Jurisdictions

Most developed countries that have a form of taxation on income impose withholding taxes on certain payments made to non-residents. The purpose of such withholding taxes is to expand the domestic tax base to include not only residents but also non-residents that derive some form of income from a source within the particular jurisdiction. Although the purpose of withholding taxes is generally uniform, the method of application varies by country.

Although there are numerous types of payments made to non-residents that may be subject to withholding taxes, this paper discusses only three types of such payments: dividends; interest; and rents and royalty payments.

Canada

Dividends

Canada imposes withholding tax on dividend payments made to non-residents at a domestic rate of 25 percent. Dividend payments made by corporations are not deductible in computing income for income tax purposes.

Canadian domestic law provides for partial integration of business and individual tax, in order to mitigate double taxation at both the corporate and shareholder level, through a gross-up and credit mechanism applied in computing the tax liability of individual shareholders. The system only partially integrates individual and corporate tax, as the dividend tax credit is fixed and does not fully eliminate or compensate for the underlying corporate tax. There is no form of integration for non-resident shareholders other than partial relief from withholding tax under the applicable treaty.

Although the domestic withholding tax rate for dividends is 25 percent, this rate may be reduced under the provisions of a bilateral income tax convention, provided that the recipient is a resident of the applicable treaty country. Treaty-reduced withholding tax rates for intercorporate dividend payments are typically 5 to 15 percent, with more recent treaties providing for a 5 percent withholding tax rate on intercorporate dividends. The withholding tax is applied on the gross amount of the payment and is a final tax.

Interest

In general, and subject to various exceptions, interest paid by corporations is deductible in computing income for tax purposes provided that the underlying indebtedness was incurred for the purpose of earning income.

Canada imposes withholding tax on certain interest payments made to non-residents at a domestic rate of 25 percent. Withholding tax is applied on the gross amount of the payment and is considered to be a final tax. Although the domestic rate is 25 percent, this rate may be reduced under the provisions of a bilateral income tax convention, provided that recipients are residents of the applicable treaty country. Typically, the treaty-reduced rate is 10 to 15 percent, with more recent treaties providing for a 10 percent rate.

Under domestic law, certain interest payments made to non-residents may be exempt from Canadian withholding tax. The most notable exemption is for interest paid to an arm's length lender, where the terms of the original loan provide that not more than 25 percent of the principal is repayable within five years except in certain limited circumstances.

Under domestic law, certain payments (such as guarantee fees) paid to non-residents may be characterized as interest and thus subjected to withholding tax.

Royalties

In general, rents and royalties paid by corporations are deductible in computing income for tax purposes provided that the expenditure is incurred for the purpose of earning income.

Canada imposes withholding tax on rent and royalty payments made to non-residents at a domestic rate of 25 percent. Withholding tax is generally applied on the gross amount of the payment and is considered to be a final tax. Although the domestic rate is 25 percent, this rate may be reduced under the provisions of a bilateral income tax convention, provided that the recipient is a resident of the applicable treaty country. Typically, the treaty-reduced rate is 10 percent, with certain types of royalty payments being subject to a 0 percent rate.

An exception to the general rule, where tax is withheld on gross payments, is provided for rent on real property and timber royalties, where a non-resident may elect to be subject to normal Canadian income tax on net income (as computed under the provisions of the *Income Tax Act*) at basic Canadian tax rates, rather than on the gross payment.

United States

Dividends

The United States generally operates a classical system of taxation, whereby business profits are taxed at the corporate and shareholder level, without relief from double taxation. A limited exception applies to certain domestically owned corporations that may elect to have business profits taxed, on a current basis, at the shareholder level, thus eliminating the corporate level of taxation. Dividend payments are not deductible in computing income for tax purposes.

Distributions from U.S. companies are treated, regardless of legal form, as a dividend to the extent that the company has either current or accumulated earnings and profits. Accordingly, it is not possible to effect a return of capital if there are earnings and profits.

The U.S. imposes withholding taxes on dividends paid to non-residents. The domestic withholding tax rate is 30 percent, but is generally reduced by treaty. Treaty rates are typically 5 percent for intercorporate dividends.

Interest

Interest payments are, generally speaking, deductible in computing income for U.S. income tax purposes. However, an important aspect of U.S. tax law is the characterization of advances and related payments. As U.S. jurisprudence adopts a substance-over-form approach, an advance that is structured as a debt may be recharacterized as equity. The characterization of an advance as debt or equity is based on a consideration of a number of factors; such factors are not codified, but rather, arise from a long history of jurisprudence. Interest payments on advances that have been recharacterized as equity are treated as distributions, and thus are not deductible for income tax purposes (and, in the case of recipients that are subject to either U.S. tax on net income or U.S. withholding tax, such payments are characterized as dividend income rather than interest income).

Interest payments made to non-residents are, subject to various exceptions, generally subject to withholding tax at a domestic rate of 30 percent. However, interest payments to non-residents who own less than 10 percent of the payor company are generally exempt from withholding tax. The domestic withholding tax rate is normally reduced by treaty, frequently to 0 percent.

Royalties

Royalty payments are, generally speaking, deductible in computing income for U.S. income tax purposes.

Royalty payments made to non-residents are generally subject to withholding tax at a domestic rate of 30 percent. The domestic withholding tax rate is normally reduced by treaty, typically to 10 percent or less.

United Kingdom

Dividends

The U.K.'s imputation tax system provides for partial integration of individual and corporate taxation. Dividend payments are not deductible in computing income for tax purposes.

Income earned by U.K. corporations is subject to mainstream corporate income tax at a rate of 33 percent. Under the imputation system, a corporation is required to pay advance corporation tax (ACT) in respect of any dividend distributions paid. Currently, ACT is equal to 20/80 (i.e. 25 percent) of the actual dividend payment. ACT can be used to offset the corporation's regular corporation tax (i.e. ACT is a credit against the corporation tax liability). Surplus ACT can be carried back six years and carried forward indefinitely.

Individuals in the U.K. are required to include in income the entire amount of the dividend plus ACT. Individuals are entitled to a credit against income tax for ACT paid by the corporation.

The U.K.'s imputation system is designed to provide integration of corporate and shareholder tax, but also to ensure that dividends have been paid out of profits that have borne U.K. corporate tax. In fact, the system only provides for partial integration of individual and corporate taxation since the credit available for individual shareholders that receive dividends is typically less than the full corporate tax.

The ACT system has traditionally created a bias against U.K. companies making investments in foreign countries. Regardless of the level of tax paid by a subsidiary in a foreign jurisdiction, the ACT system would require additional U.K. corporate tax to be paid on such earnings on distribution by the U.K. company. If the foreign tax rate exceeds the basic U.K. corporate income tax rate, dividends from a foreign subsidiary should not attract any mainstream corporate tax (the dividends are taxable to the U.K. parent, but as the U.K. utilizes a credit system, a full credit of foreign taxes against the U.K. mainstream tax would be allowed). However, when such earnings are distributed by the U.K. parent as a dividend, ACT would be payable, and since there is no mainstream corporate tax liability, the ACT would be a pure cost.

In general, dividends paid by U.K. resident corporations to non-resident shareholders are not subject to withholding tax. However, ACT is payable when U.K. corporations distribute dividends to non-residents of the U.K. Depending upon the relevant tax treaty, non-resident shareholders may be entitled to a partial ACT credit – typically, non-residents are entitled to a credit of one half of the ACT. Where non-resident shareholders are entitled to an ACT credit, the U.K. normally imposes withholding tax on the amount of the dividend plus the ACT credit at the treaty-reduced withholding tax rate.

For non-resident investors, the ability to obtain an ACT refund generally results in a reduction of the overall corporate tax paid. For example, if pre-tax earnings in the U.K. are £100 and the basic corporate tax rate is 33 percent, the aggregate tax burden for Canadian resident investors would be as follows:

Pre-tax earnings	£100
Corporate tax	33
After-tax available for dividend	£ 67
The £33 corporate tax is payable as:	
ACT £67 x 20/80	£ 17
Mainstream corporate tax	16
	£ 33

An ACT refund of one half of ACT paid would (pursuant to the treaty) be available. The ACT refund would therefore be £9.

Dividend	£ 67
ACT refund	9
Grossed-up dividend	76
Withholding tax at 10%	7
Net to Canadian shareholders	£ 69

As a result, the total cash distribution received by Canadian shareholders is £69 resulting in an effective U.K. tax burden of 31 percent (compared to the basic corporate rate of 33 percent).

Interest

In general terms, interest expense paid by U.K. resident corporations is deductible for income tax purposes. However, historically, where such interest was paid to non-resident connected individuals, U.K. domestic tax law recharacterized such payment as a non-deductible distribution.

Although characterized as such under corporate law, U.K. treaties normally provided that such interest was deductible provided it met arm's-length standards.

The U.K. imposes withholding tax at a domestic rate of 25 percent on interest paid to non-residents. The domestic rate is generally reduced by treaty, typically to 0 percent.

Royalties

Royalty payments made by U.K. resident corporations are generally deductible in computing income for tax purposes.

Royalties paid to non-residents are subject to U.K. withholding tax under domestic law at a rate of 25 percent. The domestic rate is generally reduced by treaty, typically to 0 percent.

Germany

Dividends

In principle, the German income tax system provides for total imputation and full integration of corporate and individual income tax. Income earned and retained by corporations is subject to income tax at a rate of 45 percent. Upon distribution to shareholders (resident or non-resident), the corporation receives a credit equal to 15 percent, resulting in an effective corporate income tax rate of 30 percent. Dividend payments are not deductible in computing income for tax purposes. Dividends received by individual shareholders are grossed-up to include the underlying corporate income tax; however, individuals are entitled to a tax credit of 30 percent of the grossed-up dividend, resulting in a credit at the individual level for the corporate income tax.

Germany imposes withholding tax on dividends paid to non-residents. The domestic withholding tax rate on dividends is 25 percent and is a final tax. The domestic rate is generally reduced by treaty to 5 percent to 15 percent (0 percent for European Union member countries) for intercorporate dividends.

Interest

Interest payments made by German corporations are, in general, deductible in computing income for tax purposes.

Germany imposes withholding tax on interest payments made to non-residents. The domestic withholding tax rate is 30 percent, however, this rate is generally reduced by treaty. Treaty-reduced rates vary; however, the treaty rate with most significant trading partners is 0 percent.

Interest on certain convertible bonds and profit-sharing bonds is treated as a dividend payment for withholding tax purposes.

Royalties

Royalty payments made by German corporations are, in general, deductible in computing income for tax purposes.

Germany imposes withholding tax on royalty and similar payments made to non-residents at a domestic rate of 25 percent. Treaty rates vary, with the most significant treaties providing for a rate of 0 to 10 percent.

The Netherlands

Dividends

The Netherlands operates a pure classical tax system, with income taxed at the corporate level and dividends taxed at the individual level with no relief or credit for the underlying corporate tax. Dividend payments and other similar distributions are not deductible in computing income for corporate income tax purposes.

The Netherlands imposes withholding tax on dividend payments to non-residents. The dividend withholding tax rate under domestic law is 25 percent of the gross amount of the dividend. This rate is generally reduced to 5 percent (0 percent for EU member countries) by treaty for intercorporate dividends.

Interest and Royalties

Interest and royalty payments are generally deductible for income tax purposes. Interest and royalty payments made to non-residents are generally not subject to withholding tax, however, for withholding tax purposes interest on profit-sharing bonds is treated as a dividend.

Australia

Dividends

Under Australia's tax system, individuals are entitled to a tax credit for the full underlying corporate tax in respect of dividends received, resulting in full integration of corporate and individual income tax. Dividend payments are not deductible in computing income for tax purposes.

Dividends paid to non-residents are free of withholding tax, provided that the dividends are "franked." Generally, dividends are franked if the amount of the dividend payment by the Australian company does not exceed the undistributed after-tax earnings of the Australian company (i.e. provided the earnings distributed have been subject to Australian income tax). Unfranked dividends are subject to a 30 percent withholding tax under domestic law; however, this rate is usually reduced by treaty.

Interest

Interest payments are generally deductible in computing income for tax purposes.

Australia imposes withholding tax on interest payments made to non-residents at a domestic rate of 10 percent. This rate is reduced to 0 percent under some treaties. An exemption from withholding tax is available for overseas borrowings by way of a public or widespread issue of debentures and commercial paper, provided that an exemption certificate is issued by the Commissioner.

Royalties

Royalty payments are generally deductible in computing income for tax purposes. Royalties paid to non-residents are subject to a 30 percent withholding tax under domestic law, however, this rate is typically reduced to 10 percent by treaty.

Summary of Country Comparison

The following table summarizes the country-by-country comparison of dividend withholding taxes.

TABLE 1
Withholding Tax – Dividends

Country	Rate (Treaty Rates)	System
Australia	0% ¹	Credit system
Germany	25%; (0 to 15%)	Imputation/Credit system
The Netherlands	25%; (0 to 5%)	Classical
U.K.	0%; ACT W/H	Imputation/Credit system
U.S.	30%; (5%)	Classical

¹ Dividends paid out of profits on which company tax has been paid are referred to as franked dividends. In the case of non-resident shareholders, franked dividends are not subject to any withholding tax. Unfranked dividends are subject to a 30% domestic withholding tax.

Withholding Tax Issues

Withholding taxes generally represent an additional cost of doing business for non-resident investors. In certain situations, withholding taxes may also represent an additional cost to the resident entity.

Withholding on Gross Payment

In Canada, withholding taxes are normally imposed on the gross payment to non-residents and are considered to be a final tax. Non-resident recipients are usually not entitled to any deductions in computing the liability to tax. There are, however, two exceptions to this general rule. The first

exception is for rents in respect of real property (and certain payments in respect of resources) paid to non-residents. Non-residents may elect to be taxed on net income (computed under Part I of the Act), as if they were residents, in respect of such rents. The second exception is for payments that are attributable to a permanent establishment located in Canada, and that are included in computing income for tax purposes.

In many circumstances, non-residents may incur significant expenses in order to earn the income that is subject to withholding tax. In such situations, a tax on gross income (even at treaty-reduced rates) may result in a tax burden on the net income at unacceptably high levels. Frequently, non-residents will not be in a position to credit the entire withholding tax in the country of residence. In such circumstances, non-residents might either refrain from making an investment in Canada or, alternatively, pass on the incremental cost to the Canadian resident. In many situations, the incremental cost is passed on to the Canadian resident payor by requiring the payment to be grossed-up by the amount of the withholding tax.

In order to promote investment in Canada, consideration might be given to either a reduction in withholding taxes, expanding exemptions from withholding taxes, or expanding circumstances in which non-residents may elect to be taxed on a net basis at the prevailing Canadian tax rates.

It is likely that permitting non-residents to be taxed on a net basis would require complex legislation and could be difficult to enforce as it might be difficult to verify (or determine) whether expenses are properly attributable to a particular source of income. In order to enhance access to global financial and technology markets, it would, therefore, be preferable to expand exemptions to withholding taxes and move towards a greater reduction in treaty-reduced withholding tax rates. While this may result in some revenue loss, since Canada is a net importer of capital, it should promote investment and job creation.

Reduction of withholding tax rates (or expanding exemptions) would also result in Canada's withholding tax regime being more competitive with the other jurisdictions noted. In particular, it is noted that most of the other jurisdictions provide (either in domestic law or in significant treaties) for exemption from withholding tax on interest paid to arm's-length non-residents, whereas in Canada only long-term debt qualifies for such an exemption.

Entitlement to Treaty Benefits

As noted above, most domestic withholding tax rates are reduced by Canada's treaties. In some situations, however, it is not clear whether recipients should be entitled to the benefit of the treaty reduction. This is particularly true in the case of flow-through entities.

In most tax treaties, the benefits of the treaty provisions are only available to residents of the other contracting state that are liable to tax in that state. Uncertainty arises when payments are made to entities that are treated as flow-through entities in the other country. Examples of such entities include partnerships and, in the U.S., limited liability corporations (LLCs) and corporations that have elected under Subpart S of the Internal Revenue Code (S-Corps).

As a general rule, it would seem that there cannot be any policy reason for denying treaty benefits when the owners/members of such entities are resident in, and liable for tax in, the other contracting states.

It is understood that Revenue Canada is of the view (although this was not always clear) that S-Corps should be entitled to the same treaty benefits as would be available had an election not been made to be treated as an S-Corp. It is also understood that payments made to a partnership are eligible for treaty-reduced withholding rates, provided that the members of the partnership are resident in the other contracting state. However, the benefits might not be equivalent to the benefits that would be available if the members owned the property giving rise to the payment directly. For example, if two U.S. resident corporations were 50 percent members in a partnership that owned 100 percent of the shares of a Canadian corporation, each member would be viewed as owning a 50 percent undivided interest in each share of the Canadian company. As such, dividend payments would qualify for a 15 percent treaty-reduced rate, but not the 5 percent intercorporate rate, since neither member would own 10 percent or more of the shares.

It is understood that Revenue Canada is currently of the view that LLCs are not entitled to any treaty benefits. Setting aside the question of whether this position is technically correct, there would appear to be no policy reason for denying treaty benefits.

It is submitted that all flow-through entities should be entitled to full treaty benefits if the members/owners of such entities are resident in the other state. There is no policy reason for denying such benefits, and it needlessly restricts the form of investment into Canada.

Characterization of Payments

One area in which Canadian provisions differ significantly from those of other jurisdictions is the characterization of payments. As noted above, several jurisdictions take the view that, for some purposes, profit participating debt is treated as equity. It is understood that in Germany and The Netherlands, this characterization is only made for withholding tax purposes, whereas in the U.S. the characterization is also made for purposes of computing income of the payor. It is not clear why such a characterization is necessary. There are many situations in which debt may have the characteristics of equity and vice versa. This is particularly true in the case of retractable preferred shares, which in many respects are closer in nature to debt than equity. It is, however, submitted that a recharacterization of such instruments in an international context would be inappropriate unless a corresponding recharacterization were made in a domestic context.

Another area in which there are differences in characterization of payments is the treatment of distributions. As noted above, the U.S. treats all distributions as dividends to the extent of earnings and profits. In contrast, Canada permits a return of paid-up capital on a tax-free basis regardless of whether the corporation has accumulated income. In this context, the Canadian system is much less complex than the U.S. system. In addition, the Canadian approach is more likely to stimulate investment.

Thin Capitalization

The term “thin capitalization” is commonly used to refer to a situation where a corporation, usually a subsidiary of a foreign parent, is financed with very little equity. Governments perceive thin capitalization as eroding their tax base and, in most cases, have passed extensive legislation to place constraints on the method of financing that a corporation can undertake.

This fear stems from the general supposition that a corporation financed with debt pays lower taxes than a corporation financed with equity. In all the countries considered in this paper, interest payments are a deductible expense that reduce taxable income. Therefore, by permitting a corporation to obtain its financing through debt, the government is permitting the corporation to reduce its taxable income.

Financing a company through debt would not be a concern if the ultimate financing was provided by a taxable person resident in the same jurisdiction as the borrower. While the borrower is allowed a deduction for interest expense, the ultimate lender is taxed on interest income. Therefore, if the interest is ultimately subject to income tax in the same jurisdiction as the borrower, the government would generally be indifferent as to the level of interest expense sustained by the borrower. While in this situation the borrower’s taxable income is reduced, the government still manages to collect tax by taxing the lender. This balance, however, breaks down when the lender is in a foreign jurisdiction (or is a tax-exempt entity).

Although interest paid to a non-resident recipient is generally subject to withholding tax, the rate of withholding tax tends to be less than the rate of income tax otherwise payable by the borrower. This is especially true where the withholding tax rate is reduced by a tax treaty. Therefore, by permitting a resident corporation to obtain financing through debt held by a non-resident, the government grants an income deduction while failing to create an offsetting income inclusion. This has the overall effect of reducing the tax base and has been controlled through the use of thin capitalization rules.

In addition, for existing Canadian subsidiaries of foreign enterprises, the Canadian tax base is protected, to a degree, by the imposition of withholding taxes on dividends. Relatively high withholding tax rates on dividend distributions may make it more difficult (i.e. costly) for foreign-owned Canadian subsidiaries to substitute debt for equity. There is, therefore, a linkage between withholding taxes applicable on profit distributions and the need for protection of the Canadian tax base with thin capitalization rules.

The following analysis will examine thin capitalization rules as they exist in Canada, the U.S., the U.K., Australia and Germany (The Netherlands has no thin capitalization provisions). Following an overview of the various rules, a discussion of the various objectives behind thin capitalization rules is provided, together with a discussion of various issues with respect to thin capitalization legislation.

Legislation on Thin Capitalization

Thin capitalization is controlled in a wide variety of ways. Approaches range from complex and inflexible legislation to nebulous rules governed by very general principles, typically developed through jurisprudence. For the purposes of this paper, the former are termed the “objective approach” and the latter are termed the “subjective approach.” The above-listed countries will be analysed under their appropriate classification.

Objective Approach Countries

Canada

Canada controls thin capitalization through an inflexible legislative provision that prevents a resident corporation from deducting interest on a portion of its loans from non-resident shareholders having a substantial ownership in the resident corporation. Specifically, a corporation is not permitted to deduct a percentage of interest on outstanding debts to specified non-residents where the outstanding debts of the specified non-residents exceed three times the permitted equity. The denied interest expense will generally equal the interest paid on the debt that exceeds the permitted 3:1 ratio.

The key variables in the above ratio – debt and equity – are defined in the legislation. Equity is defined as the total of (i) the retained earnings (but not a deficit) of the corporation at the commencement of the year, except to the extent that those earnings include retained earnings of any other corporation; (ii) the corporation’s contributed surplus at the commencement of the year, to the extent that it was contributed by a specified non-resident shareholder of the corporation; and (iii) the greater of the corporation’s paid-up capital at the commencement of the year and the corporation’s paid-up capital at the end of the year, excluding the paid-up capital in respect of shares of any class of the capital stock of the corporation owned by a person other than a specified non-resident shareholder of the corporation.

Debt, for the purpose of the calculation, is considered to be interest-bearing debt owed to specified non-residents and can include the unpaid interest accumulating on the original loan. In computing the disallowed interest deduction, the legislation uses the greatest aggregate amount of debt owing to specified non-residents outstanding at any time during the year. A specified non-resident shareholder is defined as a person who, either alone or together with persons with whom that person is not dealing at arm’s length, owns or has a right to own either shares possessing 25 percent or more of the voting rights of the corporation or shares possessing 25 percent or more of the fair market value of the corporation.

In addition to defining debt, equity and specified non-resident shareholders, thin capitalization legislation generally addresses two financing arrangements that may be used to circumvent basic provisions. The first of these arrangements is the back-to-back loan. This involves the interposition of a third-party financial intermediary as a means of avoiding thin capitalization legislation. In this situation, where a loan would run afoul of the legislation, the original lender would circumvent the rules by loaning the funds to a third-party intermediary who would then loan the funds to the targeted borrower. Canadian legislation addresses such a situation and deems the back-to-back loan to be a debt owing to the original lender. However, the

back-to-back loan provisions apply only where the non-resident specified shareholder loans funds to the financial intermediary on condition that the intermediary make a loan to the Canadian resident. Therefore, the provisions may not apply in all circumstances.

The second financing arrangement that is often addressed in thin capitalization legislation is where a loan provided by an unrelated party is guaranteed by a specified non-resident shareholder. The legislation in some countries provides that interest on non-resident shareholder-guaranteed debt falls within thin capitalization rules and the expense is restricted. Canada has no such provision.

Australia

During Australia's recent election campaign, the outgoing Labour government issued a press release outlining various changes that it wished to implement in the country's thin capitalization rules. The incoming Liberal-National government has indicated that it will implement these changes.

At present, thin capitalization rules ensure that where an Australian subsidiary's debt to its foreign controller exceeds the foreign controller's equity in that subsidiary by a ratio of more than 3:1, a tax deduction for the interest on that debt is disallowed to the extent of the excess. In recognition of their special funding needs, a ratio of 6:1 is allowed for investments in banks and non-bank financial intermediaries.

Foreign debt included in the ratio is broadly defined to mean any amount owing to the foreign controller or its non-resident associates upon which interest is or may become payable. For the purposes of determining the limitation on a tax deduction for the interest, the relevant foreign debt figure is the largest sum owed to a parent during the year. An election can be made, however, to use a weighted average calculation for those days of the year during which the required ratio is exceeded.

Once the foreign debt is determined, it is compared to the foreign equity contributed. In the case of an Australian subsidiary, items included in the calculation of foreign equity include the foreign controller's interests in the paid-up value of shares, the share premium account and the company's retained earnings and asset revaluation reserves. Items reducing the foreign equity figure include loans (except short-term trade credit) owed to the Australian company by the foreign controller or its associates.

The quantum of the components comprising the foreign equity are ascertained at different times during the year. Paid-up share capital and interests in a share premium reserve are determined at the end of the year of income. Retained earnings (or losses) and reserves are calculated at the beginning of the year and are reduced by so much of those earnings and reserves as are applied in paying up shares during a year of income. Intercompany loans owed to the Australian entity by the foreign company or its associates are measured at year-end.

In its press release, the government proposed to reduce the ratio to 2:1. Citing lower ratios in other countries, specifically a ratio of 1.5:1 in the U.S. and 2:1 in Spain, and lower ratios by general commercial standards (the average ratio for private corporate trading enterprises in

Australia peaked at 1.4:1 in 1990 and now stands at 0.8:1), the outgoing government felt that a ratio of 3:1 was too generous. Other than the change in figures, it does not appear that this ratio will change in other respects. That is, it appears the ratio will still be based on related-party debt to equity, making the legislation very similar to provisions in Canada.

The press release also indicated proposals to tighten existing thin capitalization anti-avoidance provisions such as rules governing back-to-back loans. Currently, where an intermediary is interposed between a foreign controller and the foreign controller's Australian investment, thin capitalization rules contain anti-avoidance provisions which treat loans made through the intermediary as if they had been made directly from the foreign controller to the Australian entity. To apply the anti-avoidance provisions, however, the government must establish a chain of debt on both sides of the intermediary. Accordingly, the anti-avoidance provisions will not apply if the transaction between the foreign controller and the intermediary does not give rise to a debt obligation (e.g. if it is an equity investment). The government considered this a significant limitation on the effectiveness of the provisions and proposed that the anti-avoidance provisions be amended to ensure that they apply irrespective of whether or not the transaction between the foreign controller and the intermediary gives rise to a debt obligation, provided the foreign controller funds the intermediary.

Finally, the government indicated its disapproval of the current ability of an Australian subsidiary to avoid thin capitalization rules by borrowing overseas from an unrelated third party and having the parent company act as a guarantor of the debt. Therefore, the government proposed that the definition of debt owing to a foreign controller be broadened to include debt supported by third-party guaranteed debts. This measure, however, would not be applied to financial institutions because of their need to rely on such borrowings in their normal business transactions.

Whereas current Australian thin capitalization provisions appear to be very similar to those in Canada, the changes announced in the press release will implement additional restrictions beyond those that exist in Canada. In addition, Australian thin capitalization provisions also apply to non-corporate businesses, including trusts, partnerships and branches of non-resident corporations. The general rules applicable to Australian resident corporations are applied to other entities with such modifications as circumstances require.

Germany

As in Canada and Australia, Germany possesses legislation that limits interest deductibility where thin capitalization is thought to exist. Although details of the legislation differ, the general principles are remarkably similar. German legislation uses a debt-to-equity ratio to determine the amount of interest to be denied; it applies its rules to shareholders having a substantial interest in the borrowing entity; and it captures back-to-back loans, parent-guaranteed loans, and loans established through intermediaries in its application of thin capitalization rules.

In general, German legislation permits a safe-harbour debt-to-equity ratio of 3:1, however, a higher ratio is permitted if it can be demonstrated that the resident entity could have borrowed from a resident arm's-length lender on the same terms. This ratio exists for loans where the interest payable is a fixed percentage of the amount advanced. If, however, under the loan the

interest is not expressed as a fixed percentage of the outstanding amount but, rather, is based on a variable such as profit-sharing, then the debt-to-equity ratio will decrease to 0.5:1. Where the German borrowing corporation is a holding company with shares in at least two affiliated companies and a fixed interest agreement was concluded between the holding company and the foreign shareholder, the debt-to-equity ratio is 9:1. Other ratios exist where interest is based on both profits and a fixed interest rate.

Equity in the ratio is the part of the equity which is allocable to the shareholder. Allocable equity is that part of the equity capital of a corporation at the close of the last fiscal year which corresponds to the share held by the shareholder in the issued capital. The corporation's equity is calculated according to the provisions of the Commercial Code. It includes the issued capital, capital reserves, profit reserves, a profit carry-forward and half of certain special items with equity elements. However, unpaid share subscriptions, a loss carry-forward and an annual loss must be deducted; the annual loss is ignored if the original equity capital is restored through profit reserves or equity contributions before expiry of the third fiscal year following the fiscal year of the loss. In addition, if a corporation not qualifying as a holding company holds an interest in another corporation, the book value of such interest must be deducted from the equity capital.

Debt is very broadly defined as a loan from a shareholder. The law only distinguishes between loans on which the interest is dependent on profits.

In Germany, a shareholder is considered to have a substantial interest in the borrowing entity if the shareholder owns 25 percent or more of the shares in a German corporation. A substantial interest may be held directly or indirectly. In general, those affected by thin capitalization rules are non-resident shareholders and resident entities exempt from corporate tax.

In order to prevent a circumvention of thin capitalization rules, Germany has enacted provisions that deal with back-to-back loans, parent-guaranteed loans, and loans through an intermediary. In doing so, Germany has perhaps the most comprehensive and detailed thin capitalization legislation of all the major industrialized countries.

Subjective Approach Countries

United States

It is difficult to categorize the U.S. under the objective/subjective label. In truth, a fair classification would include it under both categories. First, it could be considered a subjective approach country based on its traditional restrictions on thinly capitalized corporations through the recharacterization of a loan transaction as an equity investment. Second, it could be considered an objective approach country based on its detailed legislation governing "earnings stripping."

Whereas formerly the Internal Revenue Service (IRS) would only recharacterize a loan transaction as an equity investment, the passage in 1989 of specific earnings stripping legislation has resulted in a change in the IRS approach to thin capitalization. The new legislation, however, has not replaced the old subjective legislation. It has merely given the IRS a two-pronged approach to control thin capitalization.

Under the subjective legislation, the IRS has the power to reclassify all thin capitalization, i.e. the legislation applies to residents and non-residents equally. In general, the IRS would form its analysis on a case-by-case basis, comparing the level of capitalization of the company in question to arm's-length situations. In determining whether financing was in the form of equity or debt, the IRS considered such factors as the debt-to-equity ratio, the repayment provisions, the ability to pay the interest out of current income, the relationship between the parties and various other factors. In sum, under the subjective test, it would seem that the IRS has had a great deal of flexibility with which to attack thin capitalization. However, it is understood that these powers were not effective in controlling thin capitalization and hence the objective earnings stripping provisions were added.

With the passage in 1989 of the earnings stripping provisions, the IRS was supplied with additional legislative authority. Simply stated, a corporation with a debt-to-equity ratio exceeding 1.5:1 must defer its excess interest expense deduction if the interest is paid to a related person and is exempt from income tax or subject to a reduced rate under a tax treaty. The amount of deferred interest is the excess of the corporation's net interest expense over 50 percent of the corporation's adjusted taxable income. If the 50 percent adjusted taxable income limit is not fully used in any year, the unused portion may be used during a three-year carry-forward period. Any deferred interest deduction may be carried forward indefinitely.

The legislation defines the debt-to-equity ratio as the ratio of (i) total indebtedness to (ii) the sum of money and adjusted basis of other assets reduced (but not below zero) by such total indebtedness. The proposed regulations do not provide for testing on any date other than the close of the taxable year. Also, the proposed regulations exclude certain short-term payables and commercial financing from the indebtedness figure and, correspondingly, in the asset-based denominator of the ratio.

In 1993 Congress broadened the earnings stripping rules to apply to debt guaranteed by a related foreign person. For the purpose of the earnings stripping rules, guarantees are broadly defined to include any arrangement whereby a person directly or indirectly guarantees the payment of another person's debt obligation. According to the legislative history of this provision, a guarantee also includes a commitment to make a capital contribution to or otherwise maintain the financial viability of the debtor, or even to provide a "comfort letter," regardless of whether it is legally binding. However, an exception is provided for guarantees if the borrower owns a controlling interest in the guarantor.

The other way in which thin capitalization rules may be side-stepped – back-to-back loans – is also addressed in the U.S. legislation, but not in the earnings stripping section. Back-to-back loans are dealt with under legislation relating to conduit financing arrangements. Under new regulations adopted in 1995, the IRS is permitted, but not required, to disregard the participation

of one or more intermediaries in a financing arrangement when the entities are acting as conduit entities. When the IRS disregards the intermediate entities, the financing arrangement will be recharacterized as a direct transaction between the remaining participants and any conduit entity will be treated as an agent of the financing entity. By combining this rule and the earnings stripping legislation, the IRS is capable of attacking any thin capitalization that is conducted through back-to-back loans.

Although it was stated above that the U.S. has a two-pronged approach to attacking thin capitalization, this does not adequately describe the complete legislation. The complexity of the U.S. legislation is unparalleled in other countries. Among other earnings stripping concerns, legislation exists to deal with excess interest arising under high-yield discount obligations and corporate acquisition indebtedness. A detailed discussion of all these provisions is beyond the scope of this paper.

United Kingdom

New thin capitalization rules were introduced by the *Finance Act 1995*. These rules, however, merely appear to have codified Inland Revenue's prior subjective approach to thin capitalization. The new rules can best be analysed after a review of the old rules. In fact, Inland Revenue has said that for the majority of foreign-owned companies, there is no practical change.

Historically, thin capitalization was governed by a complex interaction of domestic law and tax treaties. Under domestic law, interest paid in respect of a security, including a loan or debt, to a non-resident company was considered a distribution, and not interest, where the non-resident company held more than 75 percent of the U.K. company's capital stock or where both the lender and the borrower were more than 75 percent owned by the same non-resident company. In effect, this rule meant that all interest payments to a 75 percent controlling non-resident were considered dividends.

At first glance this rule appears especially harsh. However, it was tempered and brought into line with general thin capitalization provisions through the application of the interest article in tax treaties. Many treaties overrode the U.K. legislation and allowed interest payments to be deducted. Although tax treaties provided for interest deductibility in general, in many tax treaties interest paid to a lender with whom the borrower had a special relationship could be recharacterized as a distribution if the interest payments were in excess of those that would have occurred had no relationship existed.

The problem with the above approach was that not all tax treaties contained a provision that resulted in the appropriate taxation. For example, the U.K.-Germany and U.K.-Japan treaties only allowed Inland Revenue to consider whether the rate of interest was excessive. Therefore, if a company was thinly capitalized, but at a fair market rate, such treaties prevented Inland Revenue from treating any of the interest payments as distributions.

The codification of the new U.K. thin capitalization provisions came in two steps. First, in 1992, Inland Revenue codified its interpretation of "special relationship." Second, the legislation was changed by the *Finance Act 1995* to get around treaty anomalies (dealing with discrimination) by

expanding application of the rule to all lenders. However, to prevent the rule from applying to most domestic lenders, the legislation excludes lenders who are liable for U.K. corporation tax. Thus, although the legislation does not make reference to the residence of the lender, in effect the provisions only apply to non-resident lenders.

The new legislation considers a payment to be a distribution, and not interest, where:

- (a) the borrower is a 75 percent-owned subsidiary of the lender or both the borrower and lender are 75 percent-owned subsidiaries of a third company; and
- (b) all or any part of the distribution would not have been paid to the lender if the lender had been a party with whom there was no relationship, arrangement, or other connection (formal or informal).

Thus, any interest paid between two companies (when there is a 75 percent relationship) is considered to be a distribution to the extent that the payment would not have been made had the parties been acting at arm's length.

In establishing the debt level, Inland Revenue considers the borrower's position in relation to other entities in the same "U.K. grouping." A higher debt-to-equity ratio might be obtained where the borrowing capacity of the U.K. grouping to which the borrower belongs exceeds that of the individual borrower. A U.K. grouping consists of a U.K. holding company and all its effective 51 percent subsidiaries. Therefore, where the borrowing capacity of this group is stronger than that of the individual borrower, Inland Revenue would accept a related-party debt-to-equity ratio equal to the higher ratio of the group. Conversely, if the U.K. group had a weaker borrowing capacity, the acceptable ratio for the individual borrower would be lower than the borrower could obtain independently.

When considering what would be an appropriate interest expense, Inland Revenue has historically looked at debt-to-equity ratios and interest cover ratios. For ordinary industrial or commercial activities, the acceptable debt-to-equity ratio was widely considered to be 1:1. If a higher ratio was sought, Inland Revenue needed to be convinced that the ratio was appropriate. For an interest cover ratio, a ratio of 3:1 was generally deemed acceptable.

Although Inland Revenue has stated that it will look at much more than ratios when determining whether a loan stems from an arm's-length position, it is difficult to imagine that ratios will be completely disregarded. What this approach proves, however, is that the U.K. thin capitalization test will continue to rely on subjective standards. A borrower will be given the opportunity to argue that interest payments made are appropriate and should not be treated as distributions.

The legislation does not specifically deal with back-to-back loan arrangements or guarantees.

Summary of Thin Capitalization Provisions

The following tables summarize thin capitalization provisions in the countries examined.

TABLE 2
Tests for Thin Capitalization

Country	Subjective	Fixed Ratio	Income
Australia		3:1, 6:1	
Germany		3:1, 9:1 (0.5:1) ¹	
U.K.	✓		
U.S.	✓	1.5:1	(2+:1) ²
Canada		3:1	

¹ Higher ratios may be accepted if proven arm's length.
0.5:1 ratio for participating debt.

² Income ratio based on pre-depreciation income and is, therefore, higher than 2:1.

TABLE 3
Debt Included in Debt-to-Equity Ratio

Country	All Debt	Related Non-Resident Debt	Back-to-Back	Guaranteed
Australia		✓	✓	✓ ¹
Germany		✓	✓	✓
U.K.		✓		
U.S.	✓		✓	✓
Canada		✓	✓	

¹ proposed

TABLE 4
Equity Included in Debt-to-Equity Ratio

Country	All Equity	Foreign-Related Equity	Cascade Effect Eliminated
Australia		✓	✓
Germany		✓	✓
U.K.		N/A	N/A
U.S.	✓		N/A
Canada		✓	✓

TABLE 5
Effect of Thin Capitalization Rules

Country	Disallowed Interest	Carry-forward	Deemed Dividend
Australia	✓		
Germany	✓		
U.K.	✓		✓
U.S.	✓	✓	✓ ¹
Canada	✓		

¹ There is no reclassification of a payment as a dividend under earnings stripping rules.

TABLE 6
Entities to Which the Thin Capitalization Rules Apply

Country	Domestic Corporation	Branches	Partnerships	Trusts
Australia	✓	✓	✓	✓
Germany	✓			
U.K.	✓	✓		
U.S.	✓	✓		
Canada	✓			

Issues with Respect to Thin Capitalization

In analysing any taxing provision, careful regard must be given to the objectives underlying the system. For this paper, the objectives are considered to be (i) neutrality; (ii) the promotion of job creation and economic growth; (iii) the protection of the Canadian tax base; (iv) the simplification of the taxation system; and (v) the enhancement of equitable taxation by ensuring that all businesses share in the cost of providing government services.

As can be seen from the country-by-country overview, thin capitalization legislation consists of many subparts that combine to determine the ultimate debt structure that is acceptable to any given country. This paper now turns to discuss how each of these subparts could be structured in order to meet the above objectives. Care must be taken, however, not to lose sight of the effect thin capitalization legislation has in meeting the objectives set for a taxing provision.

Book Value vs. Tax Values

In most of the countries noted, book values are used to determine whether a corporation is thinly capitalized. An exception to this is the U.S., where equity is determined as the tax value of assets less liabilities. Canada is, to a certain extent, also an exception, as the paid-up capital of shares is used, rather than the book value. Frequently, paid-up capital may be less than the amount paid by a shareholder for shares and less than the book value of the shares. This may produce an inequitable result for a non-resident shareholder.

Frequently, when a non-resident acquires an existing Canadian corporation, a Canadian acquisition company is used, such that the paid-up capital is increased to fair market value. If a non-resident indirectly acquires shares of a Canadian corporation that is a subsidiary of a non-resident corporation that is purchased, the thin capitalization limit continues to be based on historic book value, as paid-up capital cannot be increased to fair market value. In the second scenario, the ultimate non-resident shareholder would not be able to obtain the same degree of leverage in the Canadian subsidiary as would be the case if the Canadian subsidiary had been acquired directly.

Accordingly, the use of paid-up capital in the definition of equity may provide inequitable results.

Definition of Equity

There are several issues with respect to how equity is defined. In all of the countries considered (except the U.S., which uses the tax value of equity) the definition of equity includes at least a portion of share capital, surplus and retained earnings.

Share Capital

The first aspect of the definition of equity is whether all share capital should be included, or only share capital owned by certain non-residents. It is questionable whether a corporation can be considered to be thinly capitalized without a consideration of all debt and all equity. A debt-to-equity ratio, by its very nature, focusses on the borrowing capacity of an entity. It is the total equity of a corporation that determines its borrowing capacity. To consider anything other

than all debt and all equity would add considerations other than borrowing capacity to the equation. These other considerations could be addressed elsewhere in a thin capitalization calculation. Including only share capital owned by specified non-resident shareholders results in certain problems.

For example, under Canadian thin capitalization legislation, a non-resident shareholder may be precluded from loaning funds directly to a second-tier Canadian subsidiary, as the latter does not have any share capital owned by specified non-resident shareholders. There may be valid business reasons for having a structure in which it is desirable to loan directly to such a subsidiary, however, Canadian thin capitalization provisions would require the non-resident to loan to the Canadian parent, which would then be required to loan funds to the second-tier subsidiary. As a result, the existing tax legislation may cause businesses to undertake non-commercially motivated activity, and it is certainly conceivable that commercial considerations could preclude such indirect loans. Furthermore, such back-to-back loans could, technically, be caught by Canadian back-to-back loan provisions, although it would seem that this is clearly not the type of situation that such provisions were intended to apply to.

A second problem with including only shares owned by specified non-residents can be illustrated by example. Consider a situation where three parties (one non-resident and two Canadian) wish to establish a corporation where each own one third. Assume that \$12 million of funding is required, but the two Canadian resident investors are capable of providing only \$1 million each. The non-resident is capable of providing \$10 million of funding, but in order to preserve the equal ownership wishes to have \$9 million in the form of debt. Under Canada's existing thin capitalization legislation, the entity would be thinly capitalized although the debt-to-equity ratio in total is only 3:1. It is also notable that, if the two Canadian resident shareholders were non-resident, the entity would not be thinly capitalized.

Changing the definition of equity to include all equity would eliminate both the above inconsistencies. However, such a change would need to be slightly modified in order to ensure that a group of related companies could not be established that, as a whole, would breach thin capitalization rules. For example, if all equity is included in the definition, it would be possible in the multi-tiered example given above to double count the equity invested in the Canadian parent and reinvested in the second-tier subsidiary. That is, if the foreign parent were to loan funds separately to the Canadian parent as well as to the second-tier subsidiary, the foreign parent's initial equity investment in the Canadian parent would affect the debt-to-equity ratio in both the Canadian parent and in the second-tier subsidiary. By doing so, a foreign parent could lend to the Canadian group, as a whole, funds in excess of the acceptable ratio without breaching the ratio for any individual company. This problem, however, could be solved by modifying the definition of equity to include all equity except intercompany investments from a company affiliated with the specified non-resident shareholder.

The current Canadian approach favours simplicity, forcing taxpayers to structure their investments to avoid the apparent anomalies.

Retained Earnings

An issue with respect to retained earnings is whether all retained earnings should be included, or only a portion of them. In Australia and Germany, only a proportionate amount of retained earnings is included (being equal to the proportion of the non-residents' ownership), whereas in Canada the entire retained earnings balance is included. There does not appear to be any logic to including the entire balance of retained earnings, but not the entire balance of share capital and contributed surplus. However, as noted above, it would seem to be more appropriate to assess whether a company is thinly capitalized based on the total balance sheet, rather than just the equity and debt of specified non-residents.

A second issue with respect to retained earnings is whether retained earnings should be calculated on a cost basis or on an equity or consolidated basis. The Canadian legislation includes retained earnings, except to the extent that those earnings include retained earnings of another corporation, thus requiring use of cost-basis accounting. This can give rise to inappropriate results. For example, a non-resident may be required to loan directly to second- or lower-tier subsidiaries in order to remain onside of thin capitalization provisions.

A consolidated approach to calculating equity is used in the U.K. While such an approach may provide a more equitable result, it would also increase the complexity of the provisions. For example, it would be necessary to have specific legislation to prevent the double counting of equity that could result by loaning to the Canadian parent (using consolidated retained earnings) and also loaning to the subsidiary.

Deficits

Canadian thin capitalization provisions do not require a deficit balance to be deducted from equity, as is the case in other jurisdictions. Deducting deficits in the calculation of equity fails to fully recognize the equity contributed by non-residents in any ratio calculation. However, as deficits would likely erode the ability of a company to borrow from an arm's-length party, it is difficult to justify their exclusion in any thin capitalization calculations. Also, it should not matter whether the deficit arises before or after the loan is made. In either situation, the deficit has a direct effect on a corporation's borrowing capacity and should be considered when determining a fair debt-to-equity ratio.

Adjustments to Equity

Certain other countries have more complex legislation that causes equity to be reduced by various amounts. For example, in Australia, loans to the non-resident shareholder reduce the shareholder's equity. While this may provide a truer measure of the non-resident's equity investment, in Canada there are other provisions (in particular Sections 15 and 17) that would normally prevent such loans and make such an adjustment unnecessary. However, these provisions do not address related-party equity investments. If the purpose of the legislation is to prevent such practices as leveraging a Canadian company in order to invest in a foreign affiliate, then merely reducing the definition of equity by related-party loans would be insufficient and the rules would need to be expanded to include related-party equity.

Definition of Debt

Type of Debt Included

The definition of debt raises similar issues to those raised for the definition of equity. First, should just related-party debt be included or should it be all debt? Second, should debt be that of the consolidated group of companies or should it be only that of the legal entity? Third, once the above two questions are answered, what type of debt should be considered, i.e. should only interest-bearing debt be considered or should non-interest-bearing debt also be included? In addition, should substitutes for debt (such as leasing obligations or derivatives) be included?

As thin capitalization rules are concerned with interest, it appears appropriate that only interest-bearing debt is considered in the equation. In fact, if there is non-interest-bearing debt, it is arguable that such debt should be included in the definition of equity.

As to the first two issues, the discussion on the definition of equity applies equally as well to debt.

Measurement of Debt

In Canada, thin capitalization rules apply based on the greatest amount of interest-bearing debt outstanding at any time in the year. While this is a simple approach, it can obviously produce an inequitable result in situations where a large amount of debt is outstanding for a very short period of time. In Australia, the disallowance of interest is based on the greatest amount of debt outstanding in the year, however, a taxpayer can elect to use the weighted average of debt outstanding in periods where the maximum debt-to-equity ratio is exceeded, thereby providing partial relief. On balance, although averaging requires legislative complexity and would also create complexity for compliance and enforcement, it is likely justified because it achieves a more equitable result.

Back-to-Back Loans

Back-to-back loans are specifically addressed in the legislation of all the objective approach countries discussed in this paper. This is an expected outcome, however, the form of the legislation (and probably the effectiveness of the legislation) varies.

In Canada, back-to-back loan provisions apply only where the non-resident shareholder makes a loan to a person "on condition that" a second loan be made to the Canadian resident. Accordingly, the provision would arguably not apply where the non-resident shareholder merely has funds on deposit with a third party, but has not deposited the funds on condition that a second loan be made (even though the deposit may be pledged as security for the second loan).

In addition, Canadian provisions do not deal with any situations other than back-to-back loans. For example, the provisions would not apply where the specified non-resident shareholder acquires retractable preferred shares of the intermediary. Proposed legislation in Australia would deal with this issue by applying to any back-to-back "financing."

Clearly, back-to-back loans enable corporations to circumvent thin capitalization rules. Therefore, in order to prevent a corporation from avoiding thin capitalization rules by interposing a third-party intermediary in a loan transaction, Canada should consider extending its back-to-back loan provisions to include indirect financing by a specified non-resident shareholder.

As noted earlier, the existing Canadian provisions may also apply to a situation where the intermediary is a Canadian holding company, although it is presumed that this is not an intended result.

Guaranteed Loans

This is one area where, even among the objective approach countries analysed in this paper, agreement cannot be found. For example, Canada does not address the issue, Germany addresses the issue, and the former Australian government indicated in its press release that whereas it formerly felt that the issue should not be addressed, it now takes the position that thin capitalization rules should tackle parent guarantees of debt incurred by resident subsidiaries from third-party lenders.

Parent guarantees are generally perceived as a mechanism that permits thin capitalization rules to be circumvented. They allow a corporation to borrow from a foreign third party on the strength of the parent's credit. This creates an opportunity for tax planning where a foreign parent's equity can be used to support third-party loans to the subsidiary. In reality, however, there are many situations where a domestic subsidiary may have sufficient borrowing capacity, however, a lender will nonetheless request a parent-company guarantee. Normally, a lender will seek the greatest amount of security possible. Therefore, if legislation requires the inclusion of parent-guaranteed debt, it may preclude otherwise commercial lending practices and cause an increase in the cost of capital for Canadian subsidiaries (as a third-party lender would presumably require a higher interest rate if a parent guarantee is not provided).

The balance in considering whether to include third-party debt supported by shareholder guarantees is difficult. Most countries to date have backed away from including debt supported by guarantees in the test because of the concern about disrupting normal commercial financing arrangements. On balance, debt guaranteed by shareholders should likely not be included in thin capitalization ratios except in situations where it is clear that the Canadian subsidiary could not borrow without such support or where the overall debt-to-equity ratio exceeds certain defined limits.

Industry Ratios vs. General Ratios

Establishing debt-to-equity ratio is another area where countries differ in their approach to thin capitalization. Some countries have one fixed ratio, others have two ratios, and yet others have a number of ratios. Where more than one ratio exists, it is likely because the country recognizes that different industries have different debt-to-equity needs and that tax rules should reflect these differing needs. For example, real estate enterprises are typically more highly leveraged, as are financial institutions. A single thin capitalization limit for all industries places non-resident-owned entities at a disadvantage, as they are required to have the resident subsidiary

borrow directly from third parties, thereby losing access to the global credit rating of the parent company.

By imposing general ratios, a country may restrict the establishment of a company in an industry where a higher ratio is required. This would defeat the tax objective of job creation and economic growth. The simplicity that comes with maintaining only one ratio may not offset the drawbacks of inflexibility.

While there are drawbacks to a single ratio, there are also merits. A non-legislative approach (or a subjective approach) would likely result in greater uncertainty for investors, lower enforceability, and increased litigation. Any attempt to legislate multiple ratios would undoubtedly result in problems, as many enterprises are diversified in many industries.

An alternative approach would be to allow the Canadian subsidiary to have the same debt-to-equity ratio as the parent company on a worldwide consolidated basis. While such an approach would seem to be equitable, it would undoubtedly be complex and difficult to enforce.

It should be noted that the Canadian legislation currently provides one exception to the general rule of a 3:1 debt-to-equity limit. This exception applies to companies whose principal business is the development or manufacture of airplanes or airplane components.

Disallowed Interest Carry-Forward

The U.S. is unique in its approach to disallowed interest. The effect of the U.S. earnings stripping legislation is to disallow excess interest over the lifetime of the company. That is, if the company fails to meet the thin capitalization criteria for a short period, it will not be penalized if it ultimately makes up for its breach in subsequent periods. Other countries do not provide this leeway. To be fair, it is only the earnings stripping legislation that allows for a carry-forward. The traditional thin capitalization approach in the U.S. does not allow for carry-forwards when recharacterizing a loan as equity.

By allowing an interest carry-forward, a country implicitly recognizes that a company may fall short of the general standard at some periods, often during the start-up phase, yet still not breach the concept of thin capitalization over its life. This is especially important where a country uses an income statement approach to disallowing the deductibility of excessive interest. It is impossible for a company to predict, with certainty, its income for any coming year. Therefore, by strictly enforcing a rule that disallows interest in excess of an unpredictable foundation, a government would not be acknowledging the cyclical aspect of modern-day business. By allowing for an interest carryover, a government would merely be allowing a corporation the flexibility to meet acceptable related-party debt and interest levels over the life of the business.

Concern with interest carry-forwards may not be as much of an issue where the legislation attacks excessive leverage and interest expense through a balance sheet test. Under such a test, for example, the 3:1 ratio, a company is not at the mercy of cyclical fluctuations and can undertake advance planning to meet the ratio. If the purpose of the 3:1 ratio is to set an upper leveraging threshold for any given year beyond which a government will not accept interest deductibility,

then granting an interest carry-forward would allow a company excessive deductibility rights. If, however, the purpose of the 3:1 ratio is to set an acceptable limit over the life of a company, then carry-forwards may be appropriate.

A possible drawback to recognizing interest carry-forwards is that such recognition would add to the complexity of thin capitalization legislation. However, it is possible that the drawbacks of this added complexity may be offset by the economic benefits resulting from a measure of neutrality being incorporated into the legislation. Once an overall taxing measure is set, an argument can be made that economic growth and efficiency is best promoted through a neutral taxing system that allows a company to work through its economic cycles.

Objective Approach vs. Subjective Approach

As was seen in the overview of the various countries' legislations, thin capitalization has been dealt with through both objective legislation and subjective criteria. Using subjective criteria to measure thin capitalization allows for the flexibility required for different companies and different industries. The subjective approach can achieve all that the objective approach achieves and more. The drawback, however, of using a subjective approach is that taxing provisions become uncertain and, as a result, more complex. A subjective approach can lead to extensive tax planning to meet a myriad of criteria and where a corporation disagrees with the taxing authority, litigation may result.

Type of Organization

Another issue that may be examined is whether thin capitalization rules should apply not only to corporations but also to branches, partnerships and trusts. In the U.S., earnings stripping provisions apply to branches as well as corporations and, as noted above, in Australia thin capitalization provisions apply to all forms of business enterprise.

In assessing whether thin capitalization provisions should apply to all enterprises, consideration should be given to whether there is sufficient non-corporate investment to warrant such a change, which would of necessity entail detailed legislation. Such legislation would be extremely complex, and defining such aspects as equity for partnerships and trusts would be extremely difficult.

However, we would recommend that thin capitalization rules apply to branches. There does not appear to be a policy reason why branches should be treated differently from subsidiaries. Consideration could be given to applying the rules to other types of organizations if there is sufficient non-corporate investment or if there is a concern that corporate investment will be converted into non-corporate form to avoid the rules.

Thin Capitalization and Canadian Tax Objectives

No discussion would be complete without analysing the reason for the existence of thin capitalization legislation, keeping in mind tax objectives surrounding the legislation as a whole.

Clearly, thin capitalization legislation as a whole does not simplify the tax system. The best that can be achieved is to keep definitions of equity and debt as simple as possible. A range of ratios for different situations would likely not result in excessive complexity. Currently, the Canadian legislation is the simplest of all the countries discussed in this paper and, perhaps, the least effective in restricting the interest deductibility of thinly capitalized companies.

Thin capitalization rules, however, protect the Canadian tax base. By disallowing a certain amount of interest expense, the legislation prevents excessive foreign debt and promotes local borrowing.

The most compelling reason for rules on thin capitalization, and that advanced by the former Australian government in its press release, is that by allowing the domestic subsidiaries of foreign controlled companies to obtain tax benefits of unduly high debt-to-equity ratios, they are placed at an advantage relative to nationally owned and financed companies. For example, where a foreign multinational is able to shift profits out of Canada and thereby achieve both a lower tax expense in Canada and in the world, the company will be at an unfair competitive advantage over a local company that is subject to higher tax. While this is theoretically possible, it is not entirely clear whether a foreign parent will necessarily have a lower tax burden in all situations, as the interest expense paid by the Canadian company will typically be subject to both Canadian withholding tax and foreign income tax. In many situations, leveraging of a Canadian subsidiary is performed for other purposes including managing of foreign exchange risk and managing the foreign parent's foreign tax credit situation. In these situations, it is certainly not clear that the Canadian subsidiary would have any competitive advantage over a Canadian enterprise.

Treaty Issues; Double Taxation

Disallowance of interest expense under any domestic thin capitalization rules may result in economic double taxation within a multinational corporate group. As more and more countries impose and tighten their domestic thin capitalization rules, the likelihood of economic double taxation increases. The government should adopt, as a treaty policy, measures designed to eliminate economic double taxation that arises as a result of domestic thin capitalization rules – possibly by including interest disallowed under thin capitalization rules as an issue that could be dealt with by the competent authority process provided under most treaties.

Financing Through Tax-Exempt Entities

A problem has arisen in some countries, such as Canada, where thin capitalization rules only apply to loans from non-residents. In these countries it has been suggested that it is possible to obtain a loan from a local tax-exempt entity with the same erosion to the Canadian tax base as would be the case if the loan was obtained from a non-resident. Some countries have addressed this issue by applying thin capitalization rules to all debt where the lender is not subject to local income tax. This type of legislation catches both non-resident entities and local tax-exempt entities.

It should be noted, however, that in Canada the perceived abuse would likely be loans obtained from pension funds, and therefore the interest is not in reality exempt from taxation, but rather, the taxation is merely deferred until such time as the funds are distributed to the beneficiary. Accordingly, any consideration of whether such loans should be subject to thin capitalization limitations should only be undertaken with adequate consideration of the policy rationale allowing tax-assisted retirement savings.

Technical Committee on Business Taxation

The Technical Committee was established by the Minister of Finance, at the time of the March 1996 federal budget, to consider ways of:

- improving the business tax system to promote job creation and economic growth,
- simplifying the taxation of businesses to facilitate compliance and administration, and
- enhancing fairness to ensure that all businesses share the cost of providing government services.

The Technical Committee will report before the end of 1997; consultations with the public will follow the release of the report.

The Technical Committee is composed of a panel with legal, accounting and economic expertise in the tax field. The members are:

Mr. Robert Brown
Price Waterhouse
Toronto, Ontario

Mr. James Cowan
Stewart McKelvey Stirling Scales
Halifax, Nova Scotia

Mr. Wilfrid Lefebvre
Ogilvy Renault
Montreal, Quebec

Professor Nancy Olewiler
Department of Economics
Simon Fraser University
Burnaby, British Columbia

Mr. Stephen Richardson
Tory, Tory, Deslauriers & Binnington
Toronto, Ontario

Professor Bev Dahlby
Department of Economics
University of Alberta
Edmonton, Alberta

Mr. Allan Lanthier
Ernst & Young
Montreal, Quebec

Professor Jack Mintz (Chair)
Faculty of Management,
University of Toronto (on leave)
Clifford Clark Visiting Economist
Department of Finance
Ottawa, Ontario

Mr. Norm Promislow
Buchwald Asper Gallagher Henteleff
Winnipeg, Manitoba

The Technical Committee has commissioned a number of studies from outside experts to provide analysis of many of the issues being considered as part of its mandate. These studies are being released as working papers to make the analysis available for information and comment. The papers have received only limited evaluation; views expressed are those of the authors and do not necessarily reflect the views of the Technical Committee.

A list of completed research studies follows. They may be requested from:

Distribution Centre
Department of Finance
300 Laurier Avenue West
Ottawa, Ontario K1A 0G5
Telephone: (613) 995-2855
Facsimile: (613) 996-0518

They are also available on the Internet at <http://www.fin.gc.ca/>

Technical Committee on Business Taxation Completed Research Studies

☐ **WORKING PAPER 96-1**

Comparison and Assessment of the Tax Treatment of Foreign-Source Income in Canada, Australia, France, Germany and the United States

Brian Arnold (Goodman Phillips & Vineberg)

Jinyan Li and David Sandler (University of Western Ontario)

☐ **WORKING PAPER 96-2**

Why Tax Corporations

Richard Bird (University of Toronto)

☐ **WORKING PAPER 96-3**

Tax Policy and Job Creation: Specific Employment Incentive Programs

Ben Cherniavsky (Technical Committee Research Analyst)

☐ **WORKING PAPER 96-4**

The Effects of Taxation on U.S. Multinationals and Their Canadian Affiliates

Jason Cummins (New York University)

☐ **WORKING PAPER 96-5**

The Integration of Corporate and Personal Taxes in Europe:

The Role of Minimum Taxes on Dividend Payments

Michael Devereux (Keele University)

☐ **WORKING PAPER 96-6**

International Implications of U.S. Business Tax Reform

Andrew Lyon (University of Maryland)

☐ **WORKING PAPER 96-7**

The Economic Effects of Dividend Taxation

Ken McKenzie (University of Calgary)

Aileen Thompson (Carleton University)

☐ **WORKING PAPER 96-8**

Capital Tax Issues

Peter McQuillan and Cal Cochrane (KPMG Toronto)

☐ **WORKING PAPER 96-9**

Compliance Issues: Small Business and the Corporate Income Tax System

Robert Plamondon (Ottawa)

☐ **WORKING PAPER 96-10**

Study on Transfer Pricing

Robert Turner (Ernst & Young, Toronto)

☐ **WORKING PAPER 96-11**

The Interaction of Federal and Provincial Taxes on Businesses

Marianne Vigneault (Bishop's University)

Robin Boadway (Queen's University)

☒ **WORKING PAPER 96-12**

Taxation of Inbound Investment

Gordon Williamson (Arthur Andersen, Toronto)

